16-19 education funding
Trends and implications

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Research Area:
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Foreword: Education Policy Institute

The Education Policy Institute is an independent, impartial and evidence-based research institute which aims to promote high quality education outcomes for all, through analysis that both informs and influences the policy debate in England and internationally.

The funding of education, in total and by phase, is clearly an important policy issue and is often at the centre of public and political debates about education. Later this year, the UK government is expected to set out multi-year public spending plans. EPI is therefore publishing a series of reports covering school funding issues, 16-19 funding, and the options for reform of the post-18 funding system.

Although there has over recent decades been a significant expansion in participation in publicly funded post-16 English education, 16-19 funding appears to have been the biggest relative "loser" from education spending changes over the last 25 years (IFS 2018).

This report looks in detail at the trends in 16-19 spending since 2010, comparing these with other phases of education, and investigating the impact of the decline in real terms spending which has occurred. EPI researchers have looked at the spending changes experienced by different 16-19 providers across England and have assessed the possible impacts on provider finances, trends in learning hours, staff pay, and institutional performance.

The conclusions are important, and deserve careful consideration by researchers and policy-makers before future spending plans are established for the period beyond April 2020. Why has 16-19 real per student funding declined, both in absolute terms and relative to other phases? Is this as a result of deliberate judgements about the appropriate levels at which to fund students in the secondary and 16-19 phases, or has the change in funding been the unintended outcome of other policy and political decisions? This report helps answer those questions.

As ever, we welcome comments on the analysis and conclusions of this research.

Rt. Hon. David Laws, Executive Chairman, Education Policy Institute

Foreword: Pearson

As the UK leaves the European Union, and starts to think about future economic and social growth in a post Brexit world, it has perhaps never been more important to consider the way in which future generations of adults will be trained and developed.

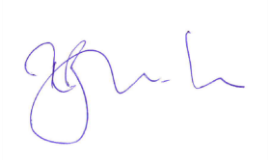
Indeed, beyond the immediate, sometimes all-consuming discussions around Brexit, there remain significant labour market challenges on the horizon which the UK cannot shy away from. How will the UK respond to the ongoing digital transformation of much of the current economy with its enormous impact on the skills needed for new and existing jobs? What will an increased focus on reducing carbon emissions mean for businesses, particularly in energy intensive sectors? How will businesses leverage the experience and adapt to the reality of a workforce that is skewing older? How will we reskill and retrain at scale? And how will we encourage adults, particularly those who may have had a poor experience in their younger years, to re-engage with education?

Whatever the answer to these questions, in the medium term it is clear that our education system needs to support learners to respond to a changing workplace. 16-19 education is a critical time in the education system because for many young people it will be the first time that a wealth of options opens up. They will need to seriously consider what they want to do in life. And that means deciding which education pathways, qualifications and skills to pursue so they can realise their ambitions and aspirations.

At Pearson our mission is to help people make progress in their lives through learning. This includes ensuring there is choice available to young people. Young people at 16 should have three broad routes open to them: an academic pathway which would tend to lead in most instances to higher education; a career focussed pathway, including BTECs, which allows options both for further study or for work; and the more specialised occupational pathway including T Levels and apprenticeships.

But for such options to be a reality for young people, it is imperative that schools and colleges are funded to offer high-quality choices. Although it is reassuring to learn that most institutions have maintained an element of high-quality provision for students across all learning routes, this report also highlights that funding levels have been reduced significantly over time for this group. This means that difficult choices have had to be made - such as reducing the courses on offer, restricting the number of hours for which a course can be taught, or removing the valuable advice and guidance support structures that can help young people deal with their choices and think about their next steps. The report is right to call for a fuller assessment of how much the curriculum has narrowed in this area, and to explore what the impact has been on disadvantaged students in particular

The current 16-19 funding levels do not support the future our young people or our country, especially at a time when the number of 16-19 year olds is predicted to rise. That is why, ahead of the Spending Review expected in the autumn, we support the report's main recommendation that the fundamental basis of 16-19 funding be reviewed to enable choices to remain that can deliver success. This funding should not be considered a cost as much as an investment - an investment that will pay back for our country and our students. In a changing and potentially demanding future world, they deserve nothing less.



Rod Bristow, President, UK & Core Markets, Pearson

Executive summary

Education for 16 to 19-year olds has experienced the sharpest cuts to real funding over the last decade, compared to the early years, primary, secondary and higher education phases.

This report provides an updated assessment of the funding squeeze and explores the impact of funding cuts, including how these vary across different types of institutions, groups of pupils and across the country. It also considers how funding has affected the breadth and depth of qualifications, teacher wages in colleges and the quality of 16-19 provision as measured by Ofsted.

16-19 education funding has fallen across all provider types and by twice the size of cuts to school funding

For many years, funding for 16-19 education was more generous than for primary and secondary. The gap began to close in the early 90s, and 16-19 education is today funded at a lower rate per student than secondary education, and the gap between 16-19 and primary education funding has reduced substantially. This is a major shift in education funding policy.

Our new analysis calculates that funding per student fell by 16 per cent in real terms between 2010/11 and 2018/19, from £5,900 to £4,960. **This is twice the rate (8 per cent) at which all school spending fell from 2009/10 to 2017/18.** This decline, together with a decrease in the 16-19 population, led to a real-terms fall in total 16-19 funding of 27 per cent, from £7.8bn to £5.7bn, over the period 2010/11 to 2018/19.

Funding per 16-19 full-time equivalent student in the further education sector has fallen from £6,250 per full-time student in 2010/11 to £5,150 in 2018/19, or by 18 per cent in real terms. **The funding fall has been smaller than in school sixth forms**, where funding fell by 26 per cent from £6,280 to £4,680 over the same period. Within the further education sector, further education colleges have experienced smaller falls than sixth form colleges partly because disadvantaged students are more likely to study in those institutions, and funding to compensate providers for challenging intakes has increased. Between 2012/13 and 2018/19, for which data exist to consider these institution types separately, funding per full-time student in sixth form colleges fell by 15 per cent, from £5,180 to £4,430 per student. Funding per student in further education colleges fell by 9 per cent from £5,870 to £5,320.

Funding for student support (including bursaries to learners aged 16 to 19) fell more than other funding streams, by 71 per cent in real terms between 2010/11 and 2018/19. Funding for programme delivery decreased by 30 per cent, while disadvantage and high needs funding combined grew by 68 per cent. Funding for 16-18 apprenticeships fell by 11 per cent between 2010/11 and 2017/18.

The financial health of all provider types has deteriorated

In 2017/18, 54 per cent of local authority maintained schools with sixth forms had in-year deficits, compared to 37 per cent in 2010/11. There were similar increases in academies with sixth forms, where the proportion with in-year deficits rose from 39 per cent in 2012/13 to 51 per cent in 2016/17.

The proportion of local authority maintained schools with sixth forms with accumulated deficits increased at a faster rate than those without sixth forms. Schools with sixth forms in deficit increased from 12 per cent in 2010/11 to 22 per cent in 2017/18, compared to an increase from 6 to 9 per cent amongst schools without sixth forms.

The proportion of sixth form colleges with in-year deficits increased five-fold between 2010/11 and 2016/17, from 7 per cent to 36 per cent. It doubled in further education colleges over the same period, from 20 per cent to 40 per cent.

Students are getting fewer learning hours, especially in academic qualifications

The amount of guided learning hours for 16-19 students decreased by nine per cent between 2012/13 and 2016/17, falling from 730 hours to 665 hours per student. While overall learning hours per student decreased, GCSE-level study increased, which is likely to be as a result of the new English and maths resits policy.

Between 2012/13 and 2016/17 learning hours per student in academic level 3 qualifications fell by 21 per cent, from 418 to 331 hours per student. This was largely as a result of a decrease in AS level provision. Learning hours per student in vocational level 3 study increased by 18 per cent from 170 to 201 over the same period.

Institutions with larger funding decreases experienced sharper falls in learning hours on average, though this relationship is weak.

Teaching staff in further education colleges and sixth form colleges have seen their wages fall in real terms

On average, **teacher wages in further education colleges fell by 8 per cent in real terms** between 2010/11 and 2016/17**,** from £33,600 to £31,000. Teacher wages in further education colleges are 17 per cent lower than in secondary schools (£36,700). **The fall was less acute in sixth form colleges**, where the average teaching wage decreased from £39,900 to £39,000.

Colleges with larger funding decreases are more likely to have experienced larger reductions in teaching wages, though this relationship is weak.

There are no clear trends in Ofsted judgements of 16-19 effectiveness

In 2017/18, 72 per cent of schools received "good" or "outstanding" grades for their 16-19 provision, compared to 57 per cent in 2010/11. However, the proportion judged "inadequate" also increased slightly to five per cent up from two per cent in 2010/11. Changes to the common inspection framework mean that comparisons over time must be treated with caution.

One in three schools inspected were found to have better 16-19 provision than their overall effectiveness, up from one in six in 2010/11.

In 60 per cent of colleges, 16-19 provision was judged "good" or "outstanding" in 2017/18, up from 57 per cent in 2012/13. This means that fewer colleges than schools receive one of the two top grades. In 2 per cent of colleges, 16-19 provision was found to be "inadequate", down from 12 per cent in 2015/16.

We have not found a relationship between recent changes in funding and Ofsted grades for 16-19 provision. However, changes to the inspection framework mean that data for different years might not be fully comparable.

Conclusions and recommendations

From 2010, provision for 16-19-year olds has experienced significantly sharper cuts to funding than in other education stages – around double the rate of cuts seen in all school phases.

This has resulted in more institutions falling into deficit, and there has been a reduction in students' learning hours, with particularly large falls in academic qualifications. Teachers in further education colleges have suffered a significant decline in their real wages. However, the link between funding, learning hours and wages is weak, suggesting that there may be other factors driving these trends. And, although making comparisons over time is difficult, there is no evidence from Ofsted gradings of an impact on these ratings from the recent decline in real funding.

Rising deficits suggest that some providers have used their balance sheet to cushion falls in funding to avoid more serious declines in provision or quality. This is not sustainable in the long term. If providers' financial health continues to deteriorate as a result of falls in funding, then provision and quality could be further compromised, with potentially more severe effects on students and providers.

Therefore, policymakers should give consideration to the following **recommendations**:

Review the adequacy of 16-19 funding. Funding for this phase of education has declined substantially more than in primary and secondary education, despite being funded at higher rates in the past. There seems to be little rationale for this change, and our research shows that the sector as a whole is in worse financial shape and that provision has shrunk. The government should ensure that the current 16-19 funding review looks at the adequacy of funding for this phase, to understand whether current funding rates can sustain quality provision in the long term without further jeopardising the sector's financial sustainability.

Address the narrowness of 16-19 education. Students are generally receiving fewer learning hours than in previous years. The decoupling of AS and A levels has resulted in a dramatic fall in AS levels, that has not been compensated with additional provision. Given that the 16-19 curriculum in England was already narrow compared to top-performing countries, this is likely to further compromise the breadth of post-16 education. With relevant international studies showing that England stands out for the low levels of basic skills of its young people, the government should assess the impact of 16-19 funding changes on curriculum breadth and ensure that young people have a good choice of high quality post-16 academic and vocational qualifications.

Ensure that future funding allocations do not leave disadvantaged students worse off. Student support has faced a dramatic fall, and despite providers attracting more funding to compensate for challenging intakes, disadvantaged students do not seem to be in providers where learning hours have been protected. There is also a scarcity of evidence of whether the decline in 16-19 funding has exacerbated the gaps between disadvantaged students and their more affluent peers. The government should review the impact of funding changes on disadvantaged young people and ensure that future funding policy works to close the disadvantage gap.

Introduction

Recent research shows that, since 2010, funding arrangements across the education sector have changed repeatedly, reshaping the qualification and provider landscape, and rebalancing different, and sometimes contradictory, priorities. Reforms and changes enacted since 2010 have seen a rise in funding per student in higher education and early years, while other stages of education have experienced falls in their budgets. [1] In the past decade, the 16-19 education phase has experienced a number of reforms and gone through a period of notable instability. As this report will describe, the 2010 spending review required substantial savings, altering the balance between programme provision, student support, and arrangements for disadvantaged students. A string of reforms followed, notably a sharp decline in funding for student support, a new funding formula, and further savings in successive spending reviews. Given the pace of reforms since 2010 and their impact on funding, alongside the relative paucity of data for earlier years, the focus of this report will be 2010 onwards.

The reforms enacted since 2010 have not been restricted to funding arrangements. The 2011 Wolf Review of Vocational Education has had a strong influence on provision. It recommended, among other things, raising the requirements for vocational qualifications to be approved, and that funding should be distributed per student, rather than per qualification.

Other reforms that changed the 16-19 landscape included the government's support for the academisation process, with many 16-19 institutions, or institutions with sixth form provision, abandoning their previous status to become an academy. New legislation on free schools has prompted the appearance of new providers such as University Technical Colleges and Studio Schools, as well as specialist institutions. [2]

These reforms have come alongside new regulations requiring young people to remain in full or part-time education or training until age 18, expanding the 16-19 education market. [3]

Furthermore, significant reforms to 16-19 provision look likely to continue for some time yet. Some of the changes that may have an impact in the short and medium-term are:

- **The 2019 Spending Review**: the government is expected to present its spending review in the next few months. The spending reviews in 2010 and 2013 resulted in substantial real terms decreases in the amount of funding for 16-19 education, as this report will discuss.
- **Introduction and expansion of T levels:** this is, arguably, one of the most important changes to the 16-19 education landscape of the next few years. As set out in the 2016 Post-16 Skills Plan, technical qualifications will be divided in 15 routes, of which 11 will be delivered through T levels, which are expected to become the technical equivalents to A levels with clear progression routes to further study or high-skilled occupations. T levels will be funded by an additional £500m a year once they are fully introduced, by September 2023. This funding is expected to cover increased teaching hours for T levels so it is unlikely to substantially change resource pressures on providers. A recent government consultation on T level funding concluded in February 2019, and responses are currently under consideration. [4]
- **Apprenticeship levy and reforms**: apprenticeships have become the government's flagship policy to close current and future skills gaps. As a result, the government set a target of 3 million new apprenticeship starts between 2015 and 2020. Employers now pay 0.5 per cent

of any payroll exceeding £3m into an apprenticeship levy to fund training. Since the levy was introduced in April 2017, the government has made changes to the original policy, including an increase to the subsidy to smaller employers, allowing companies to pass a larger proportion of their levy money on to other employers in their supply chain, or changes in funding rate bands, that increased from 15 to 30.

- **Level 4 and 5 qualifications review**: the government is undertaking a review of higher technical qualifications, with the purpose of reducing the higher technical skills shortages in the labour market.
- **Post-18 funding review**: the government's review of post-18 education, which will span academic and technical higher education, is likely to have an impact on the distribution of funding for post-compulsory education. The review was launched to provide government with recommendations on how to achieve a range of objectives, namely: creating a joined-up post-18 system; ensuring that students from all backgrounds are equally able to access education and training; delivering the skills that the country needs; and offering value for money. [5]
- **The review of post-16 level 3 and below qualifications**: in March 2019, the government announced it would be reviewing the post-16 qualification landscape, focusing on level 3 qualifications and below. The government has stated that it intends to avoid overlaps between the new T levels and any other qualifications currently on offer, such as applied general qualifications. It also expects to identify qualifications of low labour-market value and that offer little or no progression to higher levels of skills, with the objective of removing their eligibility for public funding [6]
- **Skills and Brexit**: in its industrial strategy, the government acknowledged that the stark productivity gap between the United Kingdom and other top-performing economies can be explained, to a degree, by the lack of technical alternatives to academic education, and that these gaps might worsen after the United Kingdom leaves the European Union. [7]

It is clear, then, that the 16-19 landscape has experienced substantial change since 2010, and will continue to do so. However, in contrast to other stages of education that have attracted more public interest, such as higher education, recent changes to 16-19 education and their effects remain under-researched. This report aims to understand how recent reforms have affected the amount and distribution of funding across the sector, and how this has affected providers, different groups of students, and the qualifications and skills landscape. The report will be structured as follows:

Chapter 1 will present and summarise the key reforms and changes affecting 16-19 funding and provision.

Chapter 2 will investigate the impact of these reforms on funding for 16-19 education. It will provide funding trends for institutions (allocations), students (support), and apprenticeships; present patterns for different funding streams; and map differences between provider types and between regions.

Chapter 3 will explore whether the financial health of providers has been affected by recent funding changes.

Chapter 4 will explore whether changes in funding have reshaped the qualification landscape, and if so, which qualifications have been the most affected. It will also analyse whether trends in

qualifications match employment growth in relevant occupations, to investigate whether provision has changed in line with skills needs.

Chapter 5 will seek to understand whether, as a result of new funding arrangements, some further education providers are becoming less able to recruit teachers with the right level of qualifications and with qualifications in areas relevant to the subjects they teach, and how working conditions have changed across providers

Chapter 6 will analyse whether the effectiveness of provision has been compromised by changes in funding levels, considering Ofsted's judgements of 16-19 provision.

Finally, we will discuss the findings in previous sections to offer a comprehensive picture of the changes to 16-19 funding, and what can be learned for future spending reviews.

Chapter 1. Changes to 16-19 funding policy

In 2010, the Conservative and Liberal Democrat Coalition government took power, two years after the 2008 financial crisis, which had led to two years of negative economic growth. For most of its five year-term, growth rates, though positive, were low compared to historical trends. [8] The public sector deficit had soared to 10 per cent in 2009/10 and exceeded the 3 per cent limit set out in the Maastricht Treaty until 2015/16.[9] This was reflected in the government's approach to public spending, which resulted in severe tightening of public spending across all departments. The Conservative government, in power since the 2015 election, continued these trends. This section aims to summarise the main changes affecting 16-19 provision since 2010.

The 2010 Spending review and the old funding formula

Before a new funding formula was introduced in the academic year 2013/14, funding for 16-19 education provision was allocated by a formula that considered two main elements:

- Programme provision costs: based on a national funding rate with several uplifts that accounted for high cost of provision, area-related cost, student retention and achievement, and area-based deprivation.
- Additional learner support: additional funding was provided to account for challenging intakes. This was based on prior attainment (for school sixth forms) and historical spending (other institutions). [10]

It is worth noting that funding made available to providers was not based on actual student numbers but on Standard Learner Numbers (SLN). One SLN was equal to 450 guided learning hours, which was the definition of a full-time student. [11] This would change from 2013/14, building on the recommendations of the 2011 Wolf Review of Vocational Education, discussed later in this section.

The 2010 spending review introduced substantial changes to the allocations that providers would receive, as it involved a reduction of the 16-19 education budget of around £500m.

One of the motivations behind the spending review was to divert programme funding to institutions with more challenging student populations. As a result, £150m that was previously funding additional provision would now be allocated to institutions with higher proportions of disadvantaged students. Consequently, the entitlement to tutorial time and extracurricular activities was cut down from 114 guided learning hours to only 30. Additional savings came from removing funding for teacher's pensions. Notably, an effort was made to close the funding gap between school sixth forms and colleges, as students in sixth form provision in colleges had historically been funded at lower rates. [12]

Despite the overall falls in 16-19 funding, the government introduced protections such that no institution would lose more than three per cent of their funding per student between 2010/11 and 2011/12, and a transitional protection would be in place until 2014/15.[13]

With regard to student support, the Education Maintenance Allowance (EMA), funded with £550m a year, would be replaced by a new, more targeted, 16-19 bursary that would represent a third of that cost. [14] Unlike the EMA, which was paid to 16-19 year-olds from low-income households, the new bursary is paid to providers based on previous claimant numbers. Providers establish their own

eligibility criteria and decide whether to transfer money to students in cash or in kind. The measure attracted criticism not least due to the evidence that the EMA had helped raise attainment and participation rates. [15] [16]

The 2013/14 funding formula

The changes introduced by the 2013/14 funding formula responded both to financial pressures and to some of the recommendations made by the 2011 Wolf Review of Vocational Education.

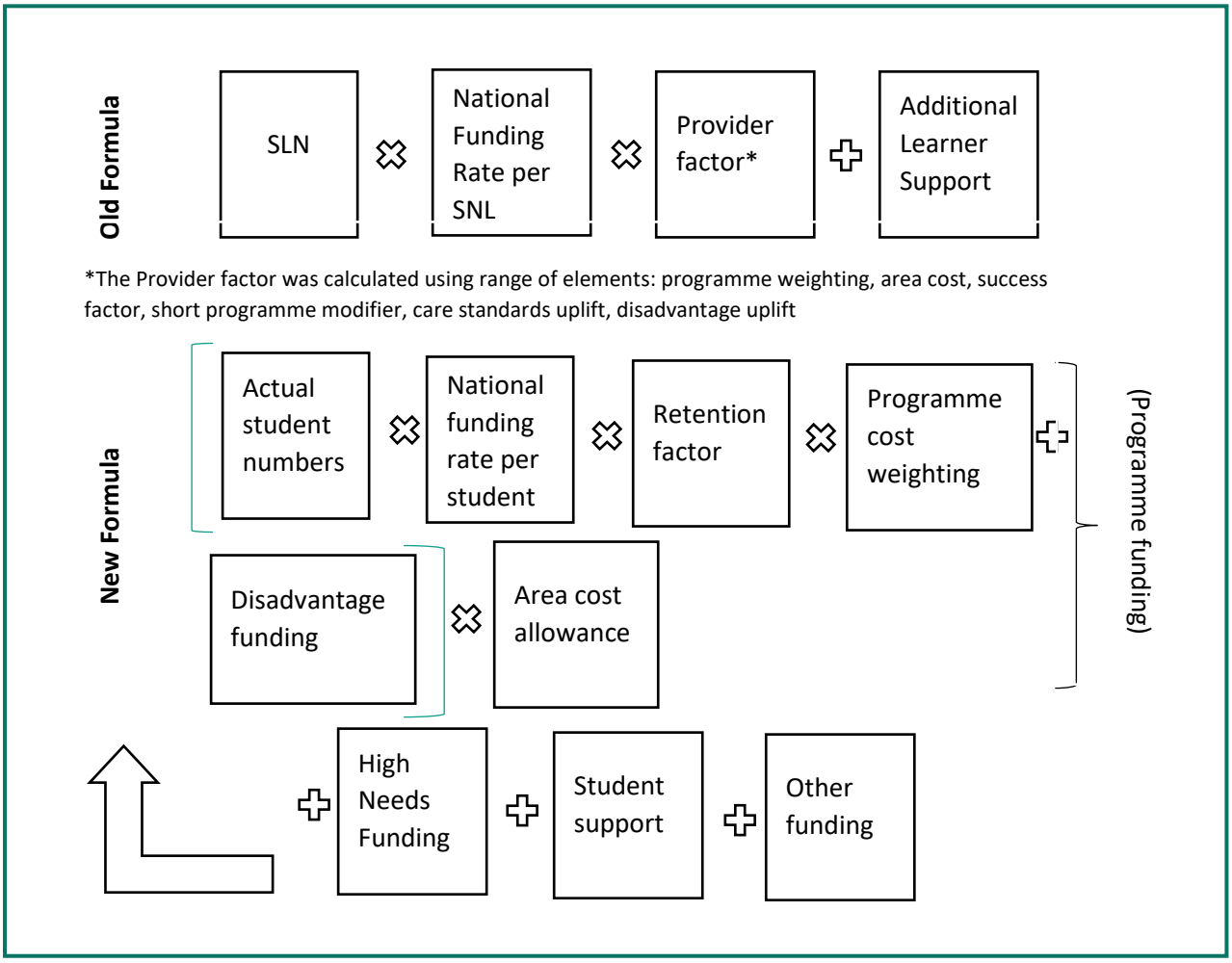
The 2011 Wolf report had substantial influence on the 16-19 landscape, prompting significant changes to qualification and curriculum design and funding allocations, notably:

- Courses for 16-19-year-old students should include a substantial qualification that enables them to go on to do further study or to obtain skilled employment afterwards. This built on Wolf's view that a provider-led system had produced too many qualifications, many of them of dubious quality and no with clear labour market value.
- Students who did not achieve a GCSE A*-C in English and maths would be required to obtain these qualifications as part of their 16-19 study. This followed the Wolf's concerns around the low level of basic skills of some young people progressing to level 3 study, especially those with learning disabilities.
- Funding would be on a programme basis and would follow the student. Wolf feared that the previous system was encouraging institutions to offer qualifications to maximise income rather than taking the students' interests into account. [17]

The new funding formula would not use Standard Leaner Numbers (SLN) anymore, but would instead consider actual number of students, as it would be based on a national funding rate for full-time students. The funding rate was initially set at £4,000 for all 16-19 students, although it would be reduced to £3,300 for those aged 18 or older at the start of the academic year from 2014/15. [18] The funding formula would also consider the costs of delivering different courses, a disadvantage uplift based on a geographic economic deprivation and the proportion of students who had not previously achieved the required level of English and maths, among other aspects.

Outside the national funding formula, institutions would also be eligible for other funding, notably for students requiring additional learning support costing over £6,000 (high needs funding).

Figure 1.1 Comparison of elements in the pre-2013/14 and the 2013/14 formula



Aware that providers offering large study programmes might have ended up substantially worse off, government introduced protections so that no providers would lose any funding per student in cash terms until 2015/16 as a result of changes to the funding formula.[19]

The 2013 Autumn Statement

In autumn 2013, it was announced that total departmental spending would be reduced by a further 1.1 per cent. [20] As mentioned earlier, funding rates for full-time 18 year-old students decreased from £4,000 to £3,300 from 2014/15, although, for that year only, no institution would see a decrease in programme funding of over two per cent as a result of that change.

The 2015 Spending Review

The most recent spending review took place in 2015 and it set out the spending plans for the financial years 2016-17 to 2019-20.

It established a cash terms protection of the national base rate per 16-19 student, resulting in a real-terms falls. In addition, total funding was set to decrease further, partly as a result of a declining 16-19 population, but also from decreases of funding outside the national funding rate. [21] That included £160m in savings to be made by phasing out the funding formula protection between 2016/17 and

2020/21. An additional £15m was saved from discretionary bursaries in further education colleges as, since the introduction of the duty to provide Free School Meals, the government perceived that double funding for the same entitlement was being provided. [22]

After the 2015 Spending Review there were not any major announcements with regards to 16-19 funding affecting the period of study, other than some additional funding for technical education announced in the 2017 spring budget. However, the cash terms freeze of funding rates and the phase out of funding formula protection continued, meaning that the effects of earlier reforms are still reshaping the funding landscape today.

Chapter 2. Trends in 16-19 education funding

This chapter explores the effects that the changes described in the previous section have had on levels of funding across the 16-19 sector. We cover the period from 2010/11 onwards, the main reasons being the observation of a change in funding trends from that academic year, and the limited availability of data for earlier years. We will seek to understand how funding has varied by:

- **Type of institution**: we offer a comparison between school sixth forms, sixth form colleges, and further education colleges, where possible.
- **Funding type**: we will compare how funding for challenging intakes or for provision in deprived areas has evolved compared to core programme funding.
- **Region**: we will investigate whether total funding and different funding concepts have followed different trends in different areas.
- **Student background**: we will attempt to identify whether institutions with more disadvantaged students have seen more or less acute funding changes.

This chapter will make use of the 16-19 funding allocations between the academic years 2010/11 and 2018/19, and of the annual reports of the Education and Skills Funding Agency and its predecessors for 16-18 apprenticeship funding. We will differentiate between four elements of funding:

- **Programme funding**: this is the allocations received by the different institutions, which includes the national funding rate and accounts for relative costs of provision in different areas or the characteristics of the programme (e.g. length), but does not consider disadvantage uplifts or additional funding for students with high needs. Where disadvantage uplifts are provided inside the funding formula, these have been subtracted and added to the next element.
- **Disadvantage and high needs**: this category of funding includes two different elements. First, the disadvantage uplift, which compensates for area-based deprivation and for student populations with lower prior English and maths attainment, and is provided as part of the funding formula. Second, high needs funding, which provides additional income to providers for students requiring more of £6,000 in additional support.
- **Student support**: this includes all funding received directly by students, usually targeting specific groups of young people to encourage participation. Depending on the year, this includes the Education Maintenance Allowance, 16-19 bursaries, residential schemes, and the Dance and Drama Awards (DaDAs).
- **Apprenticeships**: funding for apprenticeships does not come from 16-19 allocations, which means that this funding stream does not follow the national funding formula, and therefore it is considered separately. It is only available for years up to 2017/18.

Capital funding is excluded from our analysis.

Except for apprenticeship-related allocations, the other funding categories will be broken down by institution type, notably:

- **Maintained mainstream school sixth forms**: this includes academies and local authority maintained schools. This category excludes special schools, for two reasons. First, data for special schools is not available before 2013/14, meaning complete trend series could not be

provided. Second, the balance between programme and disadvantage and high needs funding differs largely from that in mainstream schools, and might distort the overall picture if shown together.

- **Further education sector**: this includes all further education providers. From 2012/13, it excludes sixth form colleges. Previous research has shown that the qualification landscape for 16-19 year-olds differs largely from that in schools, and that recent policies have aimed to address lower funding rates for colleges.[23]
- **Sixth Form colleges:** considered part of the further education sector, though they are 16-18 providers whose provision is more similar to school sixth forms than to colleges. As such they are therefore considered separately.

We have also generated the category *Other providers*, which includes all providers outside these three categories, mainly private, independent, higher education, and special providers. Trends for this fourth group are not shown, but they are included in the total funding allocations.

Unless otherwise indicated, all prices are given in real terms (2018/19 prices).

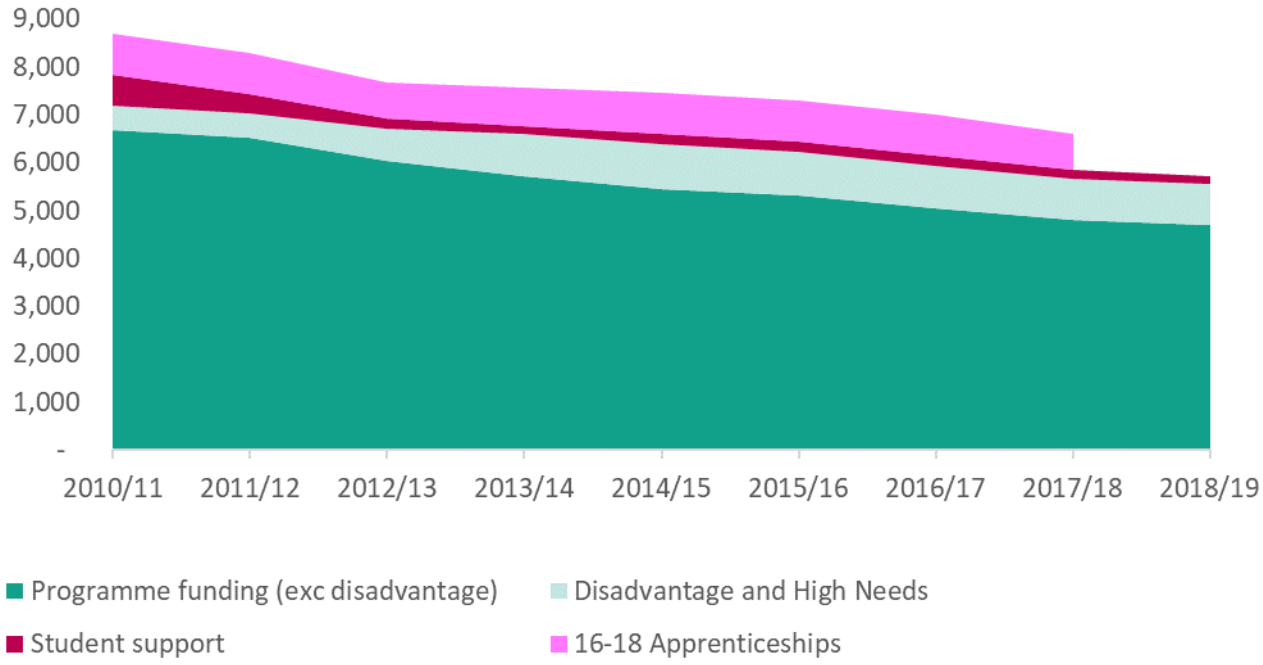
To provide this comprehensive analysis, we make use of:

- 16-19 funding allocation data from the Young People's Funding Agency (2010/11 and 2011/12), the Education Funding Agency (2012/13 – 2016/17), and the Education and Skills Funding Agency (2017/18 and 2018/19). Data for most of the outcomes considered is not available for 2018/19, so comparisons will use 2017/18 funding data as the final year.
- 16-18 apprenticeship spending from the Skills Funding Agency annual reports and accounts (2010/11 to 2016/17) and the Education and Skills Funding agency (2017/18). Apprenticeship learner numbers are from the Department for Education's Apprenticeships and Traineeships statistical first releases (2010/11 to 2016/17).
- Freedom of Information: provided by the Department for Education about the Education and Maintenance Allocations in the academic years 2010/11, 2011/12, and 2012/13.

Total 16-19 education funding

The 16-19 education budget has decreased in real terms since 2010/11. Figure 2.1 shows that, if we look at the whole picture including programme and disadvantage and high needs funding, 16-18 apprenticeships, and student support, funding has reduced from £8.7bn in 2010/11 to £6.6bn in 2017/18, a fall of 24 per cent in real terms. If apprenticeships are excluded, then we observe a decrease from £7.8bn in 2010/11 to £5.7bn in 2018/19, a fall of 27 per cent in real terms.

Figure 2.1 Total 16-19 Funding by stream, 2010/2011 to 2018/19 (2017/18 for apprenticeships), 2018/19 prices (£m)



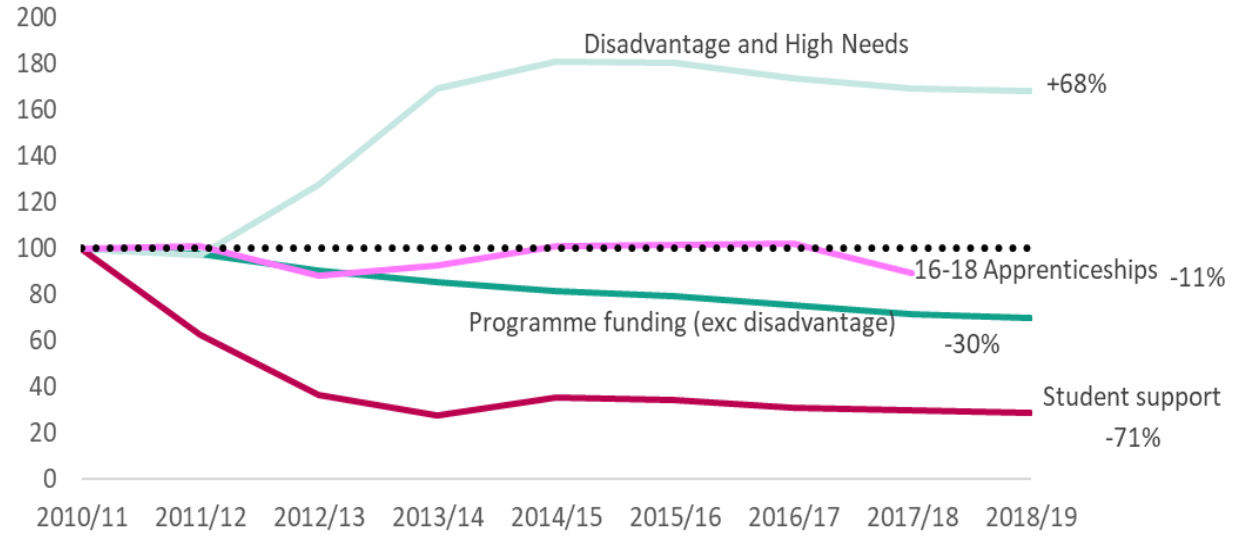
However, different funding streams have followed different patterns, as figure 2.2 shows. With the phase out of the Education Maintenance Allowance (EMA) from 2010/11, **student support** decreased by 71 per cent in real terms.

The second largest relative budget decrease occurred in 16-19 **programme allocations** (excluding disadvantage and high needs uplifts); 30 per cent in real terms. Unlike other items, the decrease in programme funding has been more gradual, as it has resulted essentially from (a) protection of funding in cash terms only, which has meant that real funding has been going down in line with inflation and student numbers, and (b) a string of reforms such as the decrease in the funding rates for 18 year-olds from 2014/15.

Funding to support institutions with challenging intakes went up dramatically in relative terms, especially between 2011/12 and 2013/14. In 2014/15, the budget attracted by the **disadvantage uplift and high needs provision** was 81 per cent larger in real terms than in 2010/11, although it fell slightly in the following academic years to 68 per cent. However, its relatively small size means that its contribution to 16-19 funding was limited, and it did by no means compensate for falls in other streams.

The funding for **16-18 apprenticeships** has increased by 11 per cent in real terms, although the latest year for which there is data available is 2017/18. Apprenticeship funding does not depend on the national funding formula, meaning that the reforms discussed (e.g. funding rates) do not directly apply to this type of provision.

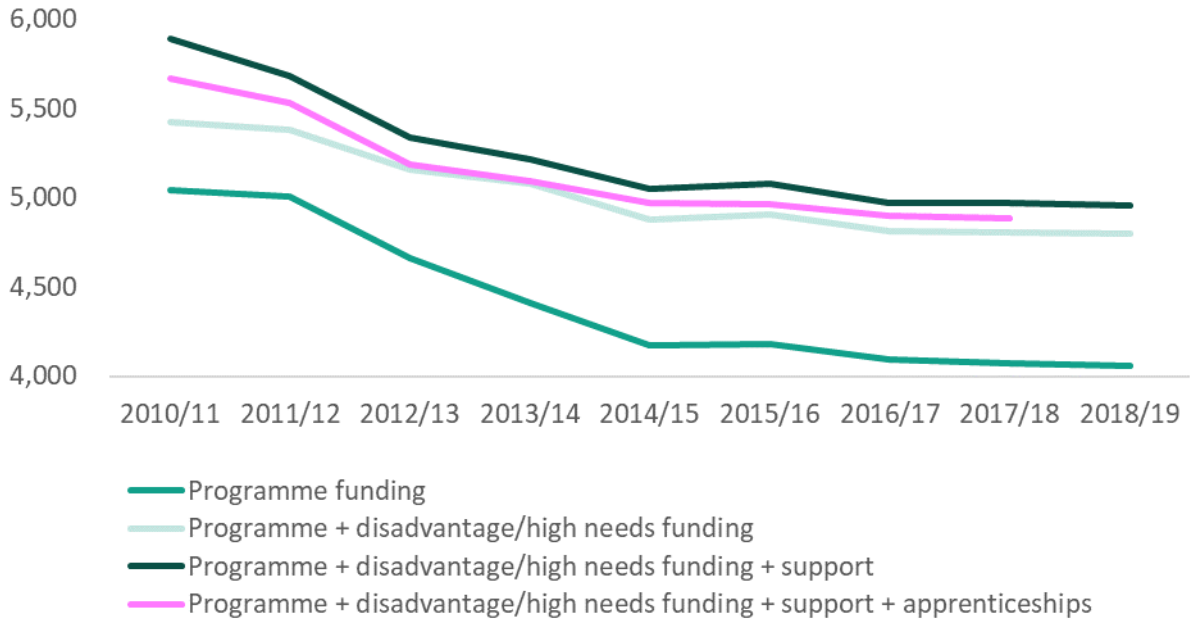
Figure 2.2 Evolution of total 16-19 funding in real terms by stream, 2010/2011 to 2018/19 (2010/11 = 100)



However, the previous analysis does not account for the **demographic changes** that occurred over the period of study. In 2018/19, there were 15 per cent fewer students in 16-19 provision than in 2010/11, while by 2016/17 (the last year for which there is official apprenticeship take-up data) there had been a fall of four per cent in the number 16-18 learners doing an apprenticeship.

Figure 2.3 displays the funding per student in 16-19 education. If we only consider 16-19 allocations made to institutions, i.e. if we exclude student support and apprenticeship funding, funding per student has fallen by 11.5 per cent (£620), or 16 per cent (£930) if student support is included. If we add apprenticeship funding to the equation, the total decrease was about £786 or 14 per cent (by 2017/18).

Figure 2.3 16-19 funding per student in real terms by stream, 2010/11 to 2018/19 (£) [24]



These numbers suggest that, in 2018/19, institutions obtained £4,800 on average per 16-19 student, down from £5,400 in 2010/11 (in 2018/19 prices). Conversely, funding for 16-18 apprentices has

increased from £4,200 in 2010/11 to £4,400 in 2016/17 which, given that overall apprenticeship funding has gone down, suggests a larger fall of learners than in other forms of provision.

If we look at 16-19 funding overall, i.e. including student support and apprenticeships, then funding per 16-19 student went down from £5,700 in 2010/11 to £4,900 in 2017/18.

The Institute for Fiscal Studies' 2018 report suggests that school funding per student fell by eight per cent in real terms between 2009/10 and 2017/18. This is substantially below our estimated 16 per cent decrease in per 16-19 student funding (including all funding streams but apprenticeships) between 2010/11 and 2018/19. 16-19 funding is confirmed as the biggest loser from education funding since 2010, and from much earlier.[25]

Funding by institution type

The 16-19 education space is made up of a wide range of institutions that we have grouped into three main categories: school sixth forms, the further education sector, and sixth form colleges. Whilst sixth form colleges are considered to be part of the further education sector, they are presented separately from 2012/13. Data is also provided for 16-18 apprenticeships. Other institutions, such as special schools and independent providers, have been excluded from the analysis, either because the data was not available for the whole period, or because their provision is so specific that they might distort general trends.

Figure 2.4 shows trends in 16-19 funding by institution type, in 2018/19 prices. Sixth form colleges were included as part of the whole further education sector until 2012/13. Trends have been similar across the board, with overall funding decreasing over time, with the exception of apprenticeships, where a dip in funding has only occurred recently.

Figure 2.4 Total 16-19 allocations by institution type and apprenticeship funding in real terms, excluding student support, 2010/11 to 2018/19 (£m)

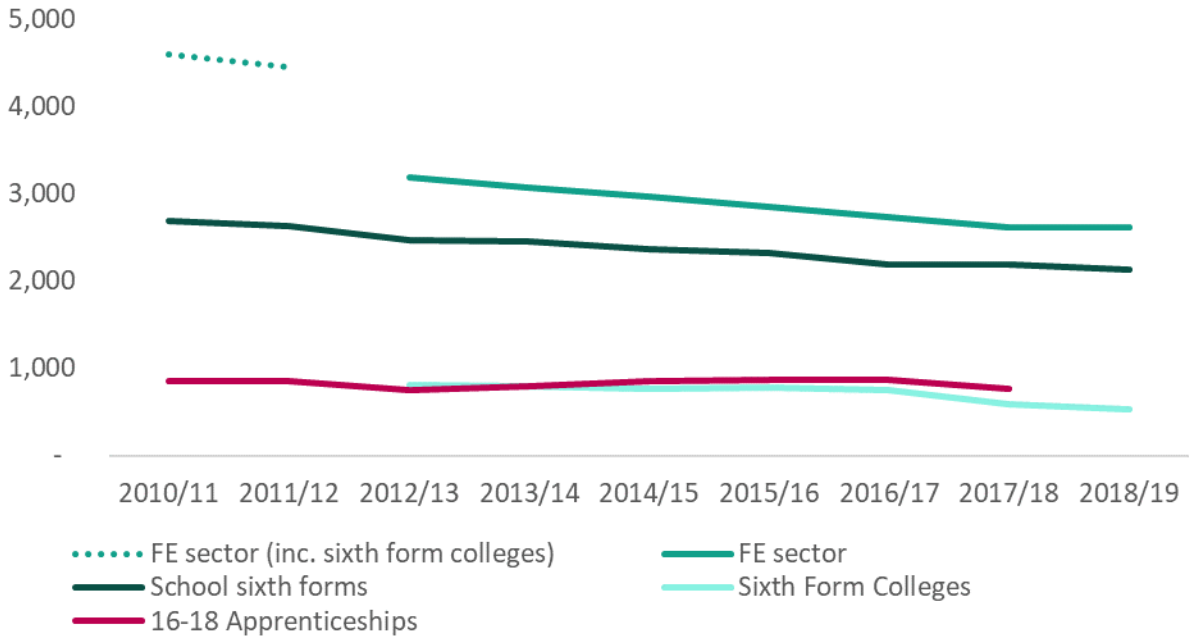
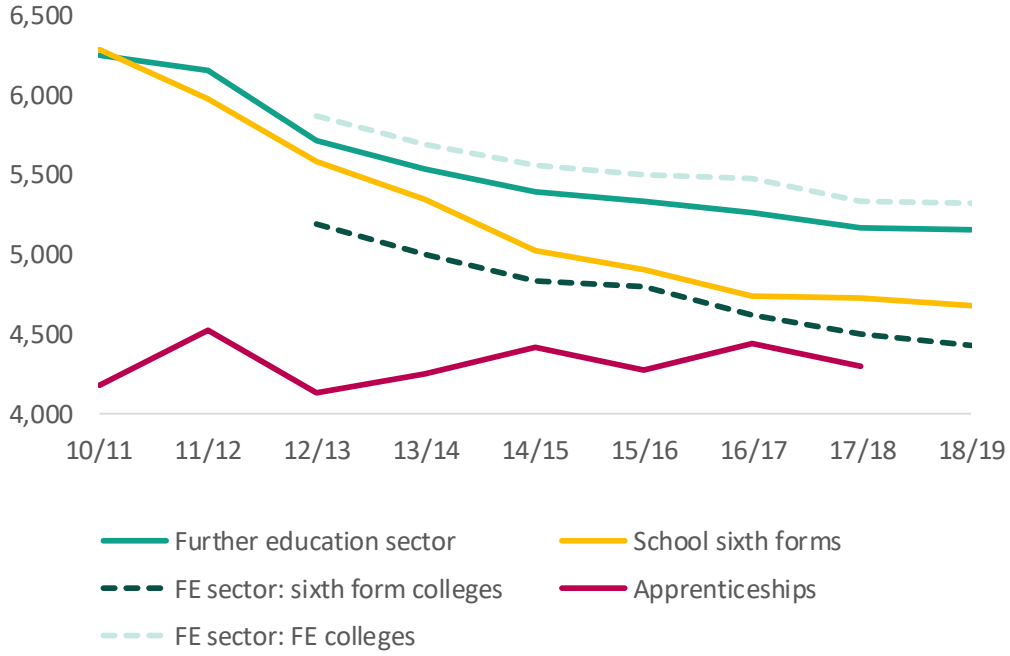


Figure 2.4 excludes student support but include all 16-19 allocations obtained by institutions, including disadvantage and high needs funding. It shows that funding for further education and sixth form colleges has fallen by a third (£1.5bn), while funding in school sixth forms has decreased by a fifth or £560m, in 2018/19 prices.

Figure 2.5 16-19 funding per full-time student in real terms (exc. student support) by institution type, and apprenticeship funding per learner, 2010/11 to 2018/19 (£)



When accounting for the number of students (figure 2.5), we see different trends between institutions. Here we use full-time equivalent student numbers from the Department for Education's Participation in Education, Training and Employment by 16-18 year olds dataset, to account for the number of part-time students in further education. In 2010/11, both the further education sector (including sixth form colleges) and school sixth forms received similar levels of funding per full-time student, £6,250 and £6,280 respectively (real terms). By 2018/19, funding for school sixth forms had dropped by 26 per cent to £4,680. Over the same period funding for the further education sector fell by 18 per cent to £5,150, a smaller fall than for school sixth forms.

Data for further education colleges and sixth form colleges, both within the further education sector, are only available separately from 2012/13. From this data we observe that funding for sixth form colleges fell faster than funding for further education colleges. Since 2012/13 funding per full-time student in sixth form colleges fell by 15 per cent, from £5,180 to £4,430, whilst funding in further education colleges fell by 9 per cent, from £5,870 to £5,320. The smaller fall for further education colleges is partly explained by the increase in disadvantage-related funding and the fact that, in 2018/19, just under 60 per cent of all high needs 16-19 students were in further education colleges. It is also because, previously, students in further education were funded at a lower rate than in schools, and the government pledged to close that gap.

The trends analysed so far do not include student support, as the aim was to reflect the level of funding allocated to 16-19 education providers, not to students. However, this underrepresents the amount of money that is being spent on this stage of education. Figures 2.6 and 2.7 provide total

funding numbers, including student support, for the further education sector, school sixth forms, and sixth form colleges for the period 2012/13 to 2018/19.[26]

Sixth form colleges experienced the largest relative decrease in overall 16-19 funding; 34 per cent in real terms or £283m, followed by the further education colleges with 18 per cent or £586m, and school sixth forms with 13 per cent or £333m. However, as figure 2.7 shows, this largely reflects changes in the number of students attending these institutions. The data suggests that, between 2012/13 and 2018/19, overall spending per student in further education colleges has decreased by 9 per cent over the period, while it has fallen by 16 per cent or £910 in school sixth forms and by 14 per cent or £730 in sixth form colleges.

Figure 2.6 Total 16-19 allocations by institution type, including student support, 2012/13 to 2018/19, real terms (£m)

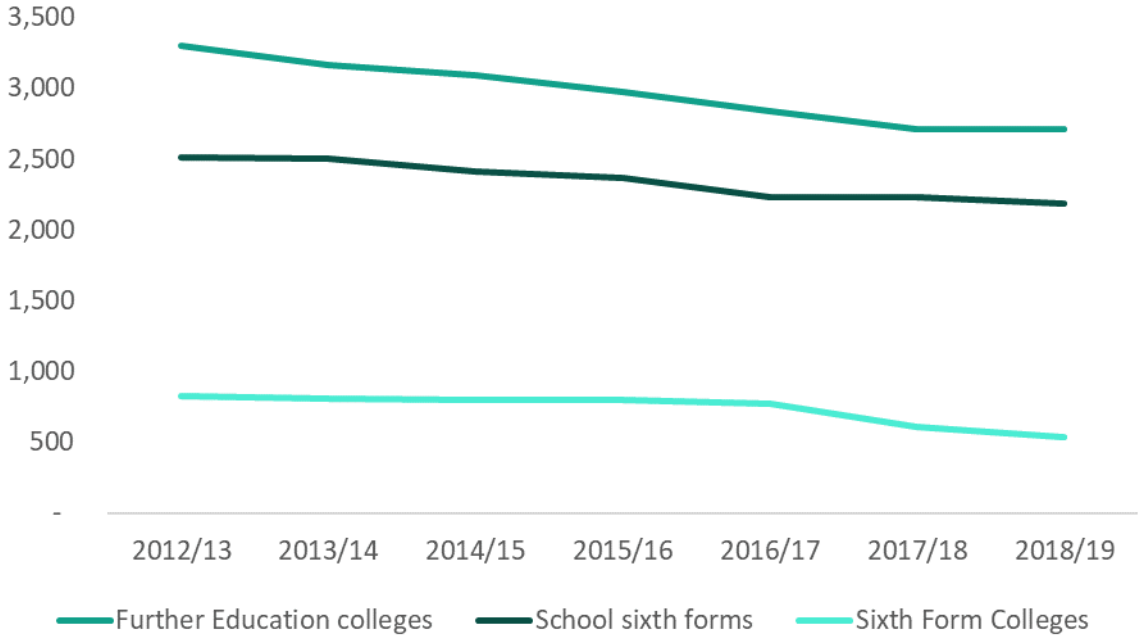
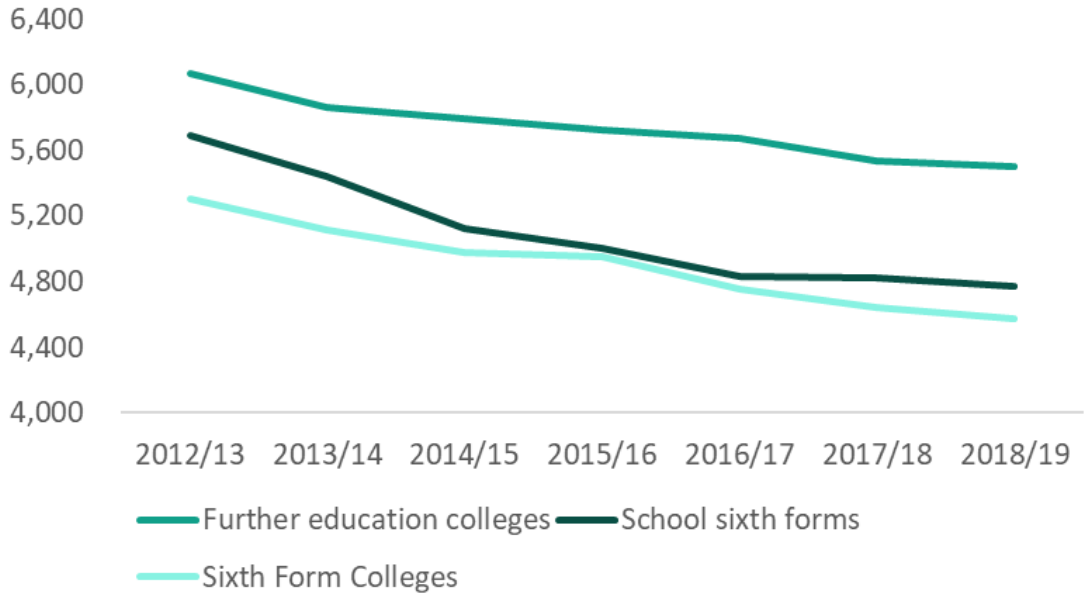


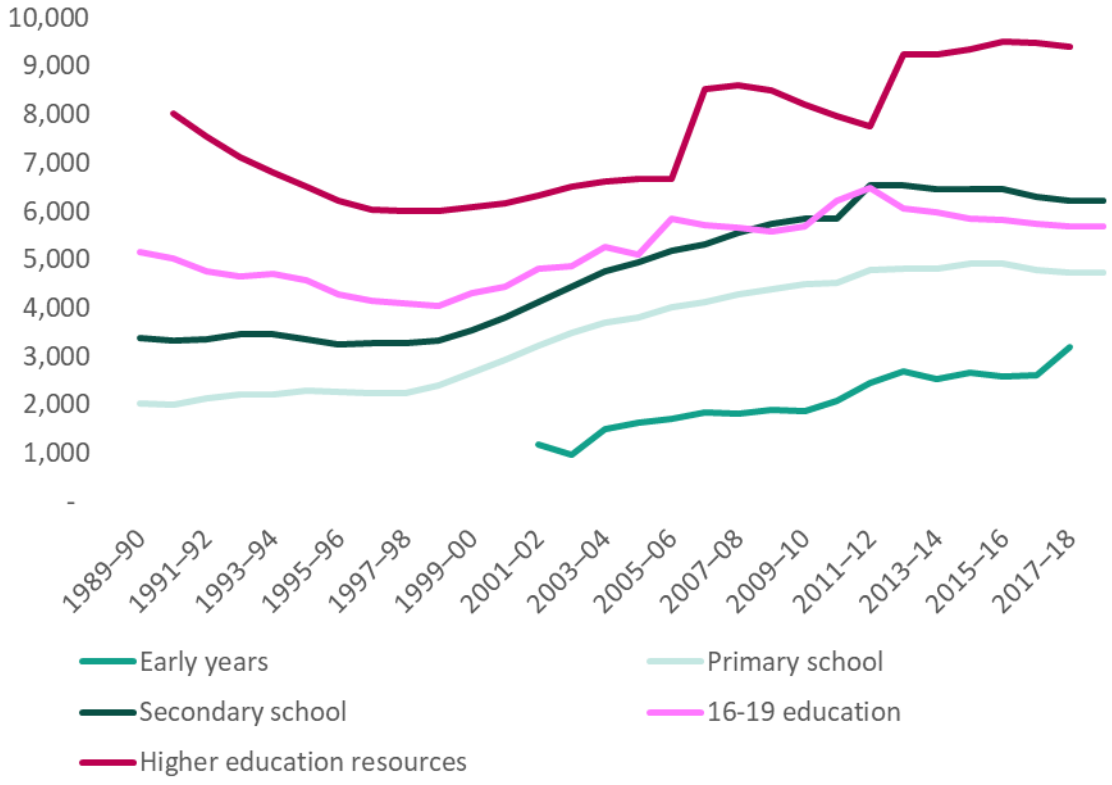
Figure 2.7 16-19 funding per full-time student in real terms by institution type, including student support, 2012/13 to 2018/19 (£)



A wider picture: a historic and comparative perspective of 16-19 funding

Our analysis in this chapter has analysed how funding for 16-19 education has changed since 2010/11. However, this should be placed in the context of longer funding trends and trends in other education phases.

Figure 2.8 Funding per student in real terms by education phase, 1989/90 to 2017/18, 2018/19 prices [27]



Source: Institute for Fiscal Studies, 2018

Figure 2.8 summarises findings from recent research from the Institute for Fiscal Studies. In the late 80s, 16-19 education was funded at higher rates per student than primary and secondary: per student funding was 2.6 times more generous than in primary school, and 1.5 greater than for secondary. As 16-19 funding per student started to fall in real terms, the gap between this phase of education and primary and secondary started to close, until the late 90s. Then, funding for all education stages started to grow again, although funding rates for secondary grew faster than for the 16-19 phase, overtaking it eventually. The chart shows that, since 2010, the funding rate for 16-19 education has fallen faster than in other stages, notably secondary education. As a result, funding per 16-19 student is now lower than for secondary students, and the large gap between 16-19 and primary education funding has reduced from 2.6 to 1.2.

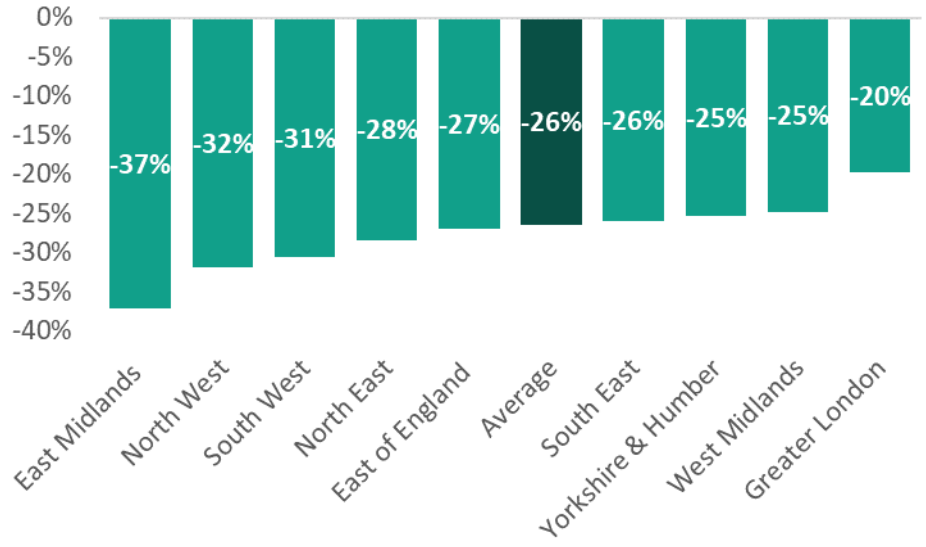
It is worth considering why 16-19 funding has suffered more than other stages – the chart also shows significant rises in higher education and early years funding. One reason might be that 16-19 education used not to be compulsory, so it might not have been seen as part of the minimum entitlement that young people have to education. However, with the participation age being raised to 18 in 2013, this argument has lost validity.[28] Previous EPI research found that around 40 per cent of the attainment gap between disadvantaged and non-disadvantaged students at age 16 is already present by age five, suggesting that early intervention is desirable.[29] However, given the current differences in attainment between more and less affluent student by age 18, it is not clear that the lack of protection for post-16 education funding compared to pre-16 is justified, especially now that young people have to stay in education or training until they turn 18.[30] Also, higher education spending per student increased in real terms while 16-19 funding per student fell.

Funding trends by region

This section looks at funding streams by areas of the country. We are only able to include programme and disadvantage funding, given that there is no information on the regional allocation of other funding streams for some of the years.

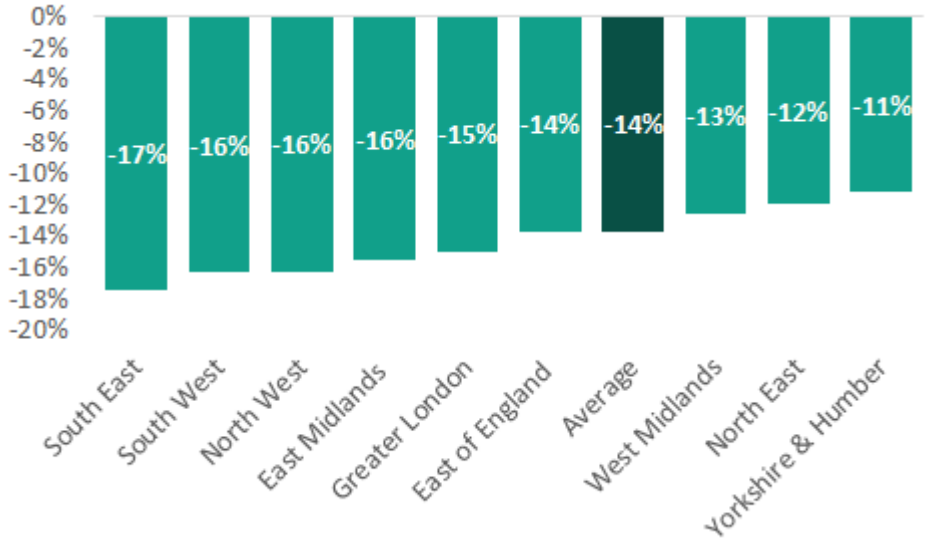
Figure 2.9 shows that the decreases in overall funding between 2010/11 and 2018/19 have been twice as large in the hardest hit region than in the least affected; 37 per cent in real terms in the East Midlands, compared to 20 per cent in Greater London. The average funding decrease in England was 20 per cent.

Figure 2.9 Change in total 16-19 funding allocations, excluding student support and apprenticeships, by region, real terms, 2010/11 to 2018/19



However, these decreases partly reflect demographic changes. When student numbers are considered we observe that the South East, which experienced a smaller than average funding decrease, saw the largest funding decrease; 17 per cent. Yorkshire and the Humber has seen the smallest change, of 11 per cent.

Figure 2.10 Change in 16-19 funding allocations per student, excluding student support and apprenticeships, by region, real terms, 2010/11 to 2018/19

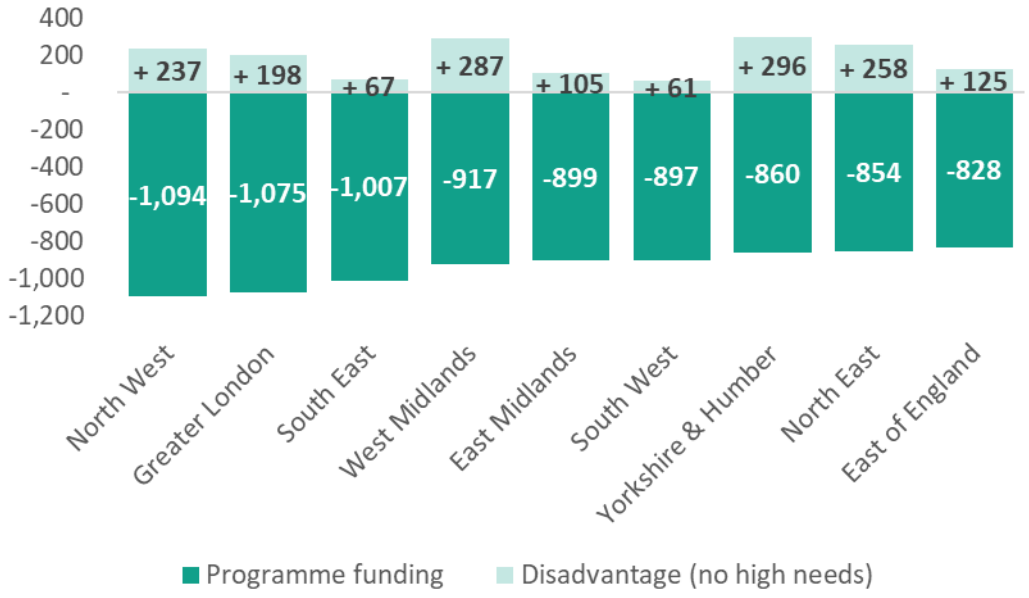


As previously discussed, we have divided 16-19 allocations to providers into two main categories - that is programme funding, and disadvantage and high needs. The former accounts for the cost of delivery, while the latter considers disadvantage, be that individual or area-based. Figure 2.11 seeks to understand whether changes in funding across regions can be explained by trends in these two categories.

The chart below shows that, in all cases, disadvantage funding per student has increased between 2010/11 and 2018/19, between £62 and £296 per student, depending on the region. This reflects

the government's explicit objective to divert money to areas and providers with more challenging intakes. However, there is no one single case where the increase in disadvantage and high needs funding has compensated for the decrease in programme funding.

Figure 2.11 Change in 16-19 funding allocations per student by stream, excluding student support and apprenticeships, by region, real terms, 2010/11 to 2018/19 (£)

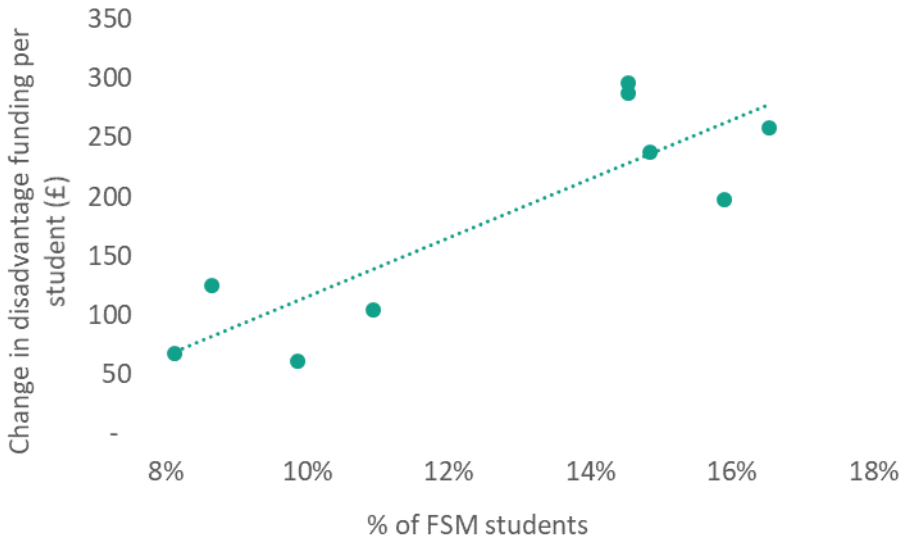


Funding and levels of disadvantage

As discussed earlier in this report, successive reforms from 2010 have attempted to protect institutions with more challenging intakes from severe falls in funding.

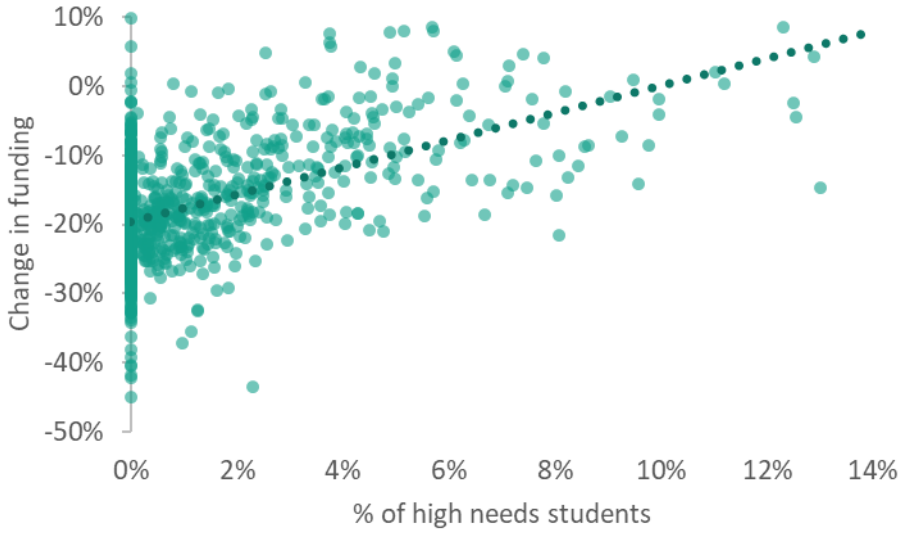
Figure 2.12 shows that the regions with higher proportions of secondary students eligible for free school meals (FSM) are indeed those where 16-19 disadvantage and high needs funding goes up the most. Indeed, the proportion of FSM students in the regions explains 74 per cent of the differences in high needs funding between regions. The correlation is a lot weaker for changes to overall funding per student.

Figure 2.12 Proportion of students in secondary schools eligible for and claiming Free School Meals, and increase in disadvantage and high needs funding per student in real terms between 2010/11 and 2018/19, by region



If we look at individual schools instead, we also see that there is a positive correlation between funding trends and the proportion of students who qualify for 16-19 high needs funding. Figure 2.13 shows that, the association between funding changes and the level of disadvantaged students in a given institution is positive. However, the high levels of variations also suggest that not all institutions with high levels of disadvantage have been equally protected, which might be partly explained by the type of programmes they are offering.

Figure 2.13 Changes in funding per student in real terms v proportion of 16-19 students who are high needs, 2011/12-2017/18



Summary of funding trends

This section has presented the trends in 16-19 funding between 2010/11 and 2018/19. Notably, it finds that:

- The overall 16-19 spending on programme delivery and student support **decreased by 27 per cent in real terms, from £7.8bn in 2010/11 to £5.7bn in 2018/19**.
- By funding stream, **student support fell by 71 per cent in real terms, 16-19 programme funding** (excluding disadvantage and high needs) **decreased by 30 per cent, and 16-18 apprenticeship funding fell by 11 per cent**.
- The Coalition government pledged to protect institutions with challenging intakes from large decreases in funding, and **increased disadvantage and high needs funding by almost 70 per cent in real terms**. This, however, did not compensate for falls in other funding streams.
- Excluding apprenticeships, **16-19 funding per student decreased by over £900 or 16 per cent in real terms (over £600 or 11.5 per cent if student support is excluded)**. Funding per student in 2018/19 was £4,960, down from £5,900 in 2010/11.
- **Funding per 16-19 full-time equivalent student in the further education sector has fallen** from £6,250 per full-time student in 2010/11 to £5,150 in 2018/19, or by 18 per cent in real terms. **The funding fall has been smaller than in school sixth forms**, where funding fell by 26 per cent from £6,280 to £4,680 over the same period. Within the further education sector, **further education colleges have experienced smaller falls than sixth form colleges**. Between 2012/13 and 2018/19, for which data exist to consider these institution types separately, funding per full-time student in sixth form colleges fell by 15 per cent, from £5,180 to £4,430 per student. Funding per student in further education colleges fell by 9 per cent from £5,870 to £5,320.
- The South East experienced the largest falls in programme funding per capita (-17 per cent in real terms), including disadvantage funding. This compares to a fall of 11 per cent in Yorkshire & Humber.
- **There is a positive correlation between the proportion of disadvantaged students and increases (or smaller decreases) in funding**, which reflects that the government has, at least in part, succeeded in protecting institutions with challenging intakes from the largest funding reductions**. This suggests that the 16-19 funding system has become more progressive**. However, there is substantial variation between providers, suggesting that not all institutions with high levels of disadvantaged students have been able to avoid large falls in funding.

Chapter 3. Changes in the financial health of providers

The analysis in the previous chapter considered absolute and per student falls in 16-19 funding. The following sections of this report will investigate the impact of this reduction in funding, starting with an analysis of the effects on the financial sustainability of providers.

This chapter explores whether the financial health of different types of institutions has been compromised by changes in funding. We use different data sources for each group of institutions:

- **Local authority maintained schools with sixth forms**. We look at in-year deficits and surpluses of schools with sixth forms that are maintained by their local authority. We use Consistent Financial Reporting data from the Department for Education.
- **Academies with sixth form provision.** We look at in-year deficits and surpluses of single academy trusts (SATs) or individual academies that are members of a multi academy trust (MAT), and that have sixth form provision. We use the Academies Account Returns data from the Department for Education.
- **Further education colleges and sixth form colleges.** We consider in-year adjusted operational deficits and surpluses of further education colleges and sixth form colleges. The Education and Skills Funding Agency (ESFA), and other institutions such as the National Audit Office, use this as a more accurate measure to judge colleges' financial sustainability than raw deficit figures. This excludes non-cash local government pension tractions, other ESFA financial support, and taxation. We use ESFA's College Accounts data. This means that in-year deficits of further education providers are not comparable with schools and academies.

The diversity of data sources used in this section means that figures for different types of institutions are not directly comparable. For example, although for both local authority maintained schools and academies we provide raw in-year deficits and surpluses, academies receive funding for the additional responsibilities they need to undertake for being outside of local authority control, and data for academies include some capital funding that is excluded for local authority maintained schools.[31] In addition, schools with sixth forms can cross-subsidise 16-19 provision with 11-16 funding, putting them at an advantage compared to sixth form institutions. Colleges are less likely to do so given the low funding rates of adult learning.

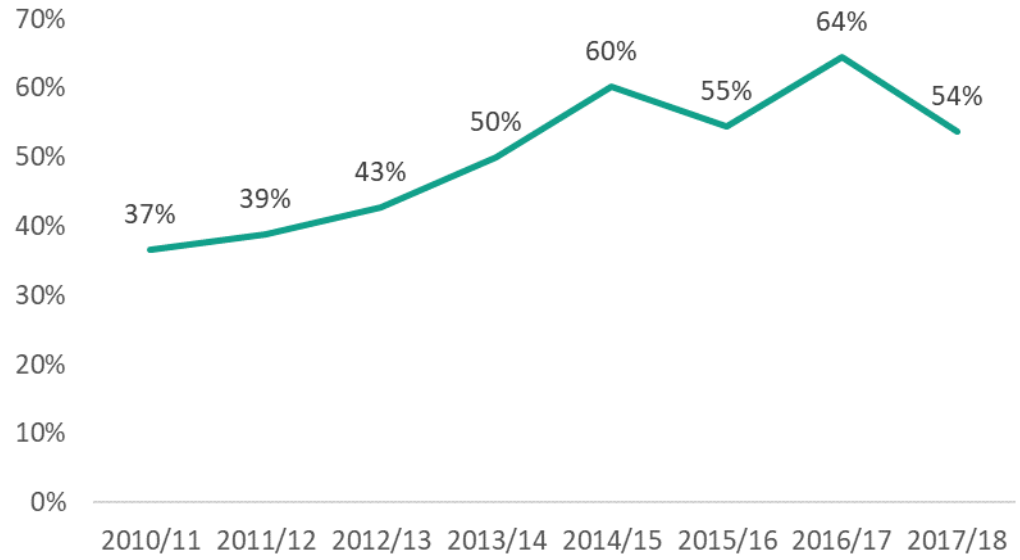
However, trends for different groups of institutions will be provided, and changes in their financial health will be compared to trends in 16-19 funding. It is important to keep in mind that balances reflect the overall state of the institution, and that 16-19 funding represents, in many cases, a fraction of their total income.

Trends by institution type

The number of **schools with sixth forms maintained by local authorities** with in-year deficits grew over our period of study. In 2010/11, over a third (37 per cent) had spent more than their income, while more than half (54 per cent) did so in 2017/18. This means that, today, in more than half of local authority maintained schools with 16-19 provision, spending exceeds their funding, down from just under two thirds the year before. An important consideration here is that the landscape of institutions considered in this figure has changed a lot since 2010/11, as many schools have now converted to academies. A report by the National Audit Office from 2018 reported that 72 per cent

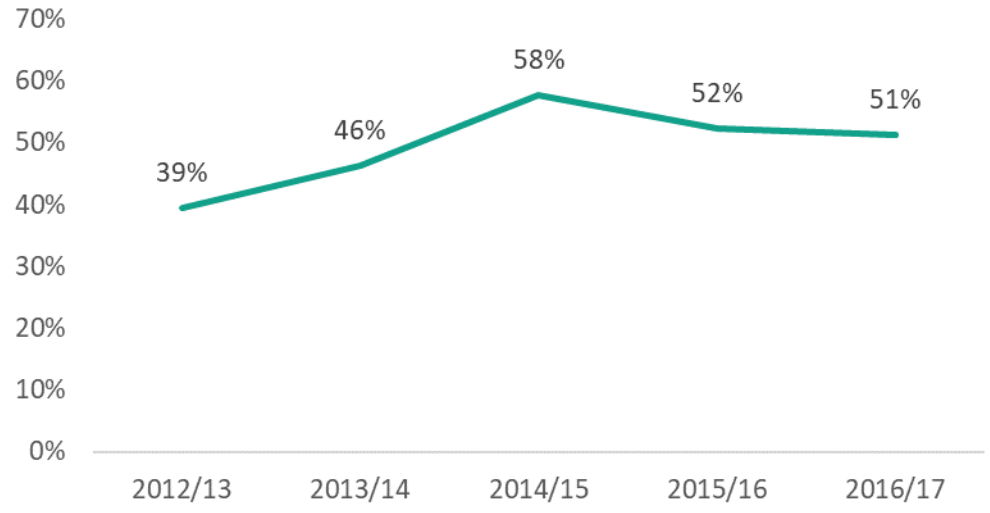
of secondary schools are now academies, and that most academies had converted from local authority maintained schools.[32] It should also be noted that these trends will also be influenced by funding changes in the 11-16 provision for these schools. [33]

Figure 3.1 Proportion of local authority maintained schools with sixth form provision with in-year deficits, 2010/11-2017/18



Although data for **academies** is more limited, we can see a similar trend for the years available. Figure 3.2 shows that more than half (51 per cent) of academies with sixth form provision had in-year deficits in 2016/17. The number of academies spending more than their income peaked in 2014/15, when 58 per cent did so. Many new academies have opened in recent years, so some of the variation might also be explained by the new providers joining the system.

Figure 3.2 Proportion of academies with sixth form provision with in-year deficits, 2012/13-2016/17



The number of **sixth form colleges** with in-year deficits has soared, as shown in figure 3.3. In 2010/11, only seven per cent of sixth form colleges had adjusted operational in-year deficits, while the proportion grew to 36 per cent in 2016/17, a fivefold increase. However, this still constitutes fewer providers with in-year deficits than **further education colleges**, of which 40 per cent had in-

year deficits in 2016/17, down from 45 per cent in 2013/14 (figure 3.4). It should also be noted that trends in further education colleges will also be influenced by funding changes in 19+ provision.

Figure 3.3 Proportion of sixth form colleges with adjusted operational in-year deficits, 2010/11-2016/17

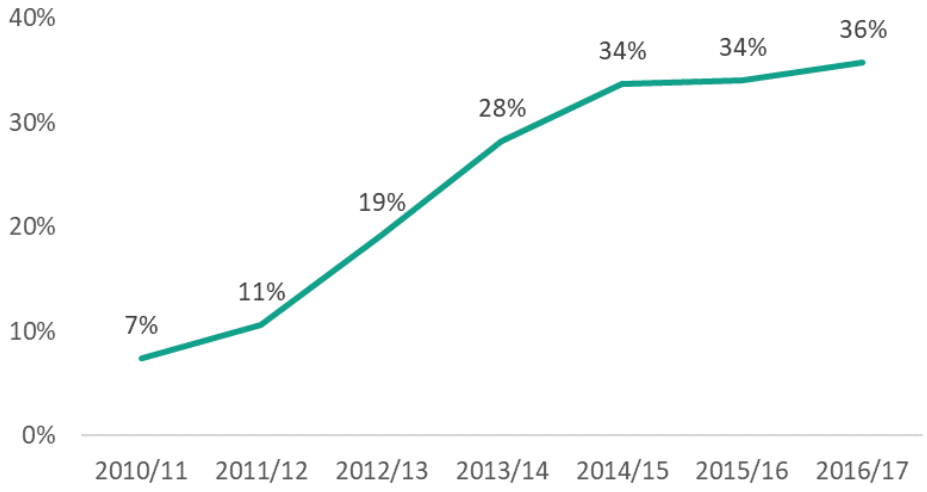
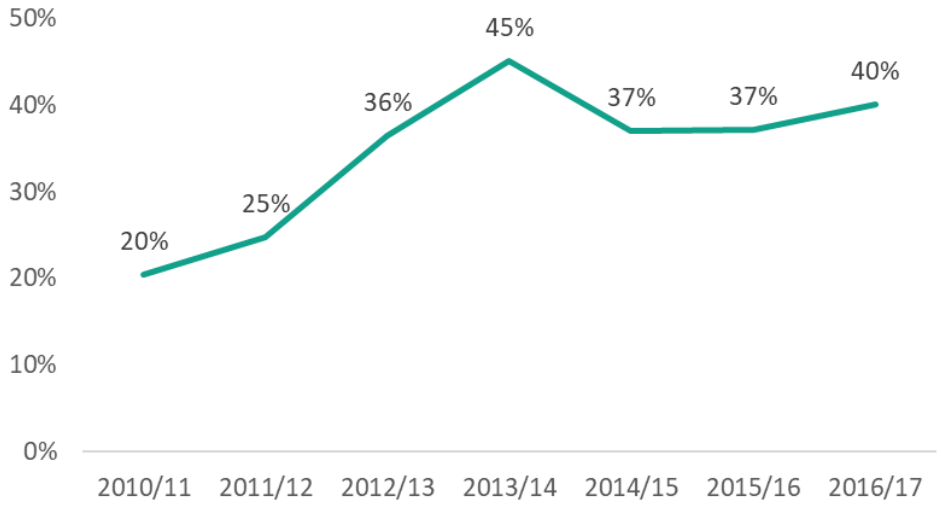


Figure 3.4 Proportion of further education colleges with adjusted operational in-year deficits, 2010/11-2016/17



Trends in accumulated deficits

In-year deficits do not tell the whole story, as small deficits can be manageable, and they do not need to compromise the financial health of institutions. Figures 3.5 and 3.6 look at accumulated deficits instead, and show the size of deficits of local authority maintained schools, and how trends for schools with and without 16-19 provision differ.

In 2010/11, 12 per cent of schools with 16-19 provision had accumulated deficits, compared to only six per cent of those without a sixth form. The percentage went up in 2017/18, especially among schools with sixth forms: 22 per cent of them had negative balances (+10 percentage points), compared to nine per cent of schools without 16-19 provision (+3 pp). Similarly, the proportion of schools with sixth forms with an accumulated deficit equivalent to 10 per cent of their income or

more has gone up from two to seven per cent, while only two per cent of schools without a sixth form have accumulated deficits worth more than 10 per cent of their income.

This suggests that schools providing 16-19 education, which have suffered the impact of lower funding rates, have experienced faster increases in their accumulated deficits. This is very unlikely to be sustainable over time, and makes 16-19 providers more vulnerable to funding shocks that may compromise their provision.

Figure 3.5 Accumulated deficit in local authority maintained schools with and without sixth forms, 2010/11

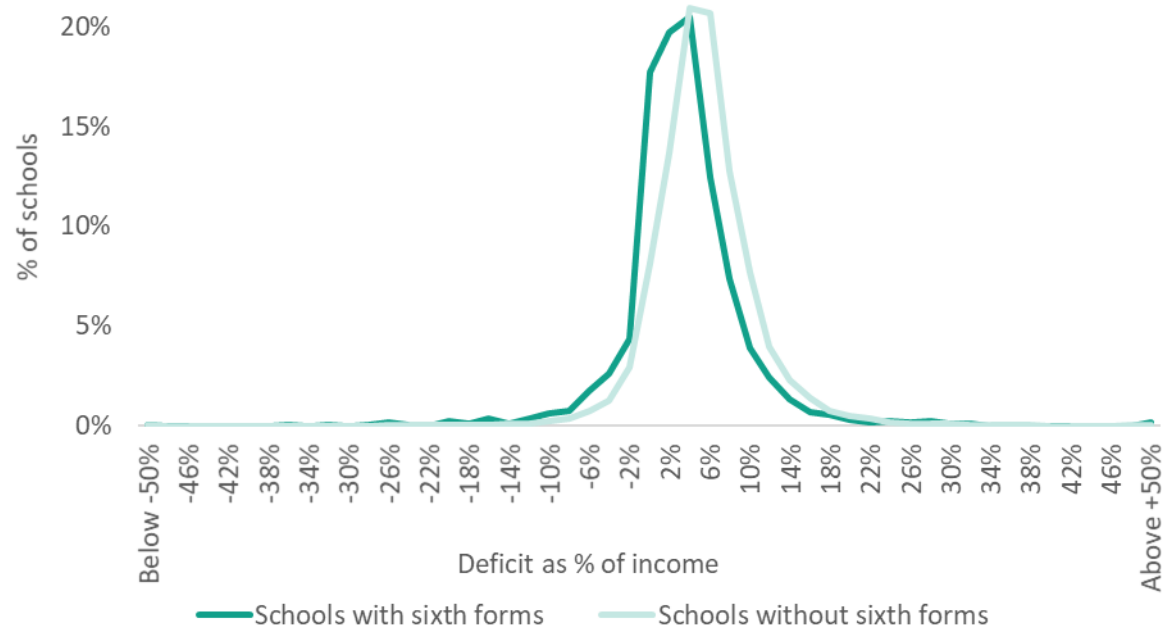
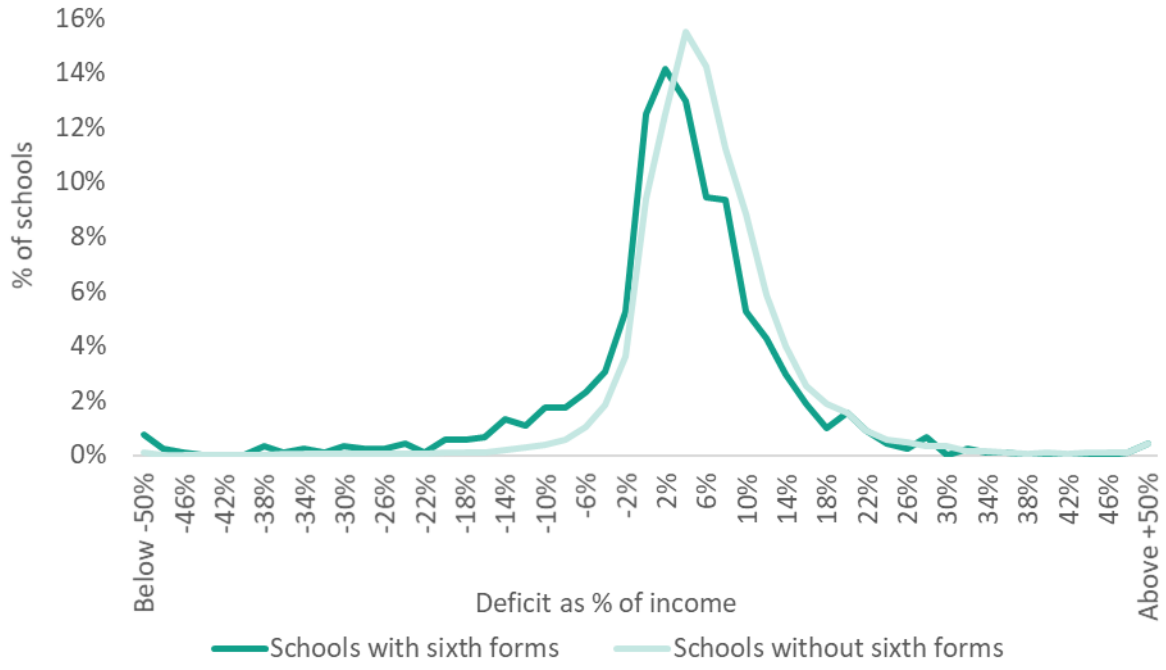


Figure 3.6 Accumulated deficit in local authority maintained schools with and without sixth forms, 2016/17

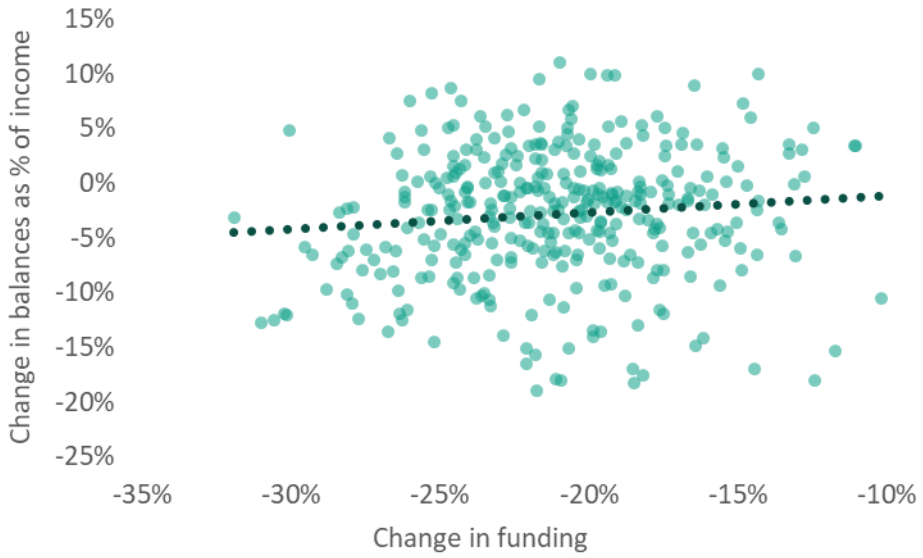


Impact of funding on the financial health of institutions

Establishing a link between institutions' balances and levels of 16-19 funding is not straightforward, given that for most providers funding for their 16-19 provision only represents a fraction of the total. All-through schools will receive funding for primary, secondary, and sixth form education so changes in 16-19 funding will have a more limited, yet not negligible, effects on their total level of income, and therefore, balances. The same is true for colleges, many of which have 16-19 provision but also offer training for older learners, meaning that their budgets and balances will also depend on the funding rates of adult training.

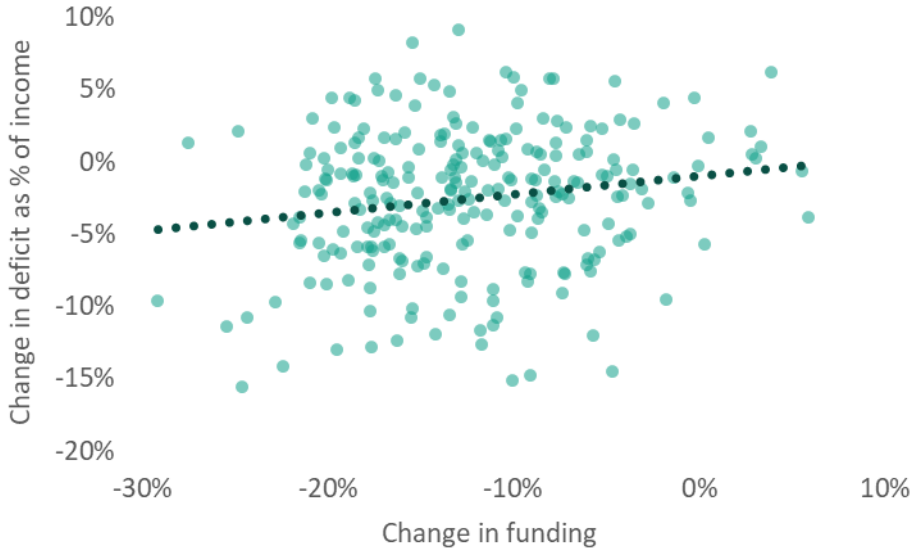
The relationship between changes in 16-19 funding and balances in schools with sixth form provision is very weak. However, if we exclude providers that also offer primary education, then the picture changes slightly. As figure 3.7 shows, there is a positive, yet weak, correlation between changes in 16-19 funding and changes in providers' balances.

Figure 3.7 Change in balances as proportion of income v changes in funding per student in real terms, state-funded schools with sixth forms and no primary provision, 2011/12-2017/18



This link is stronger for further education and sixth form colleges (figure 3.8). Despite substantial variation between providers, there is a positive correlation between changes in 16-19 funding and changes in deficits of colleges. This is not surprising, as most further education colleges start their provision at age 16, and funding for 19+ technical education and training is no more generous than for sixth form provision.[34]

Figure 3.8 Change in deficit as proportion of income v change in funding per student in real terms, further education and sixth form colleges, 2011/12-2017/18



Summary of findings and trends

This section has explored whether the financial sustainability of schools and colleges with sixth form provision has worsened or improved since 2010, and if so, whether changes in deficit figures can be explained by changes in the level of 16-19 funding.

Our analysis suggests the following:

- **Financial sustainability has worsened across all institution types offering 16-19 education**.
- In 2010/11, 37 per cent of local authority maintained schools with 16-19 provision had in-year deficits, while by 2017/18 54 per cent did so. That year, 51 per cent of academies with sixth form provision had in-year deficits, up from 39 per cent in 2012/13 (compared to 43 per cent of local authority maintained schools).
- **Schools with sixth forms have seen their financial health worsen faster than schools without sixth forms**. In 2017/18, 22 per cent of schools with sixth forms had accumulated deficits, up from 12 per cent in 2010/11. Only 6 per cent of schools without sixth form provision had accumulated deficits in 2010/11, and 9 per cent of them did so in 2017/18. Schools with sixth forms also have larger accumulated deficits than those without a sixth form, suggesting that **their financial health has worsened more than in other schools**, a trend that could compromise provision in these institutions.
- **The financial health of further education institutions has deteriorated too**. The number of sixth form colleges with in-year deficits increased from 7 per cent in 2010/11 to 36 per cent in 2016/17. This means that now a similar percentage of sixth form colleges and further education colleges have in-year deficits (40 per cent of colleges did so in 2016/17), despite further education colleges starting from a higher baseline; 20 per cent had in-year deficits in 2010/11.
- Except for sixth form colleges, 16-19 provision only constitutes a part of most providers' educational offer and funding, meaning that the impact of 16-19 funding allocations on overall balances is only partial. However, **providers with larger 16-19 funding decreases**

were likely to see their financial sustainability worsen relative to other providers, and the link is especially strong among colleges.

Chapter 4. Changes in qualification take-up

This chapter aims to understand whether the amount and type of qualifications taken by 16-19 year olds have changed over time, and whether this may have been driven by changes in funding. We address this by analysing Key Stage 5 data in the National Pupil Database and the Individual Learner Record, looking at trends over time. To identify whether qualifications on offer match skills needs, we analyse the latest Working Futures data and compare it against trends in qualification take-up. Working Futures data provided ten-year labour market projections until the UK Commission for Employment and Skills ceased to operate.

Numbers for 2010/11 and 2011/12 are not provided due to data limitations.

The focus of this section is not just on the number of qualifications taken, but also the size of those qualifications. That is, the sum of the hours spent being taught or supervised. This is because size varies hugely across qualifications. Counting only the number of qualifications could be a misleading measure of the amount of learning taking place if, for example, government policy or other changes were pushing providers towards fewer, but more substantial qualifications (as has happened with the decoupling of AS levels), or the other way round.

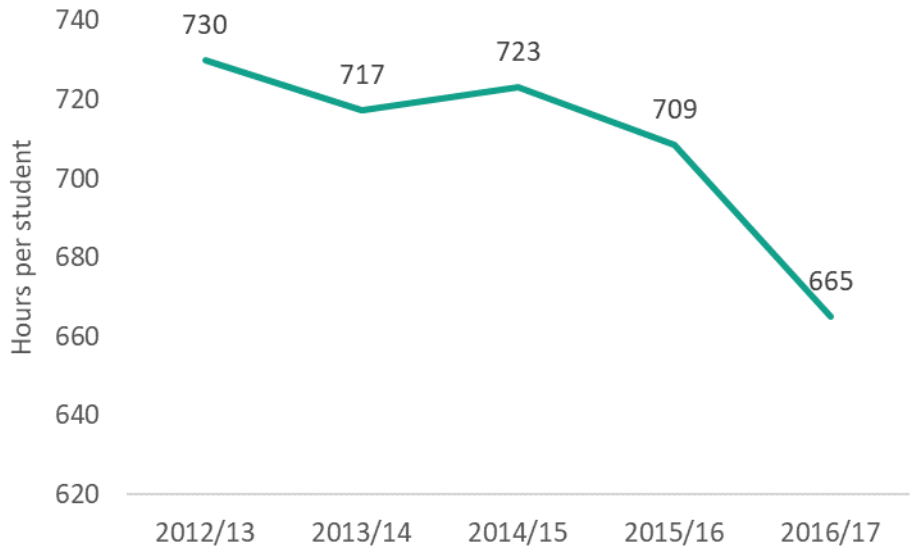
This section will therefore analyse trends in the guided learning hours received by students aged 16, 17, and 18 at the beginning of each academic year. We calculate the **learning hours per student** of qualifications by multiplying the number of minimum guided learning hours associated with qualifications achieved in any given year by the number of students taking those qualifications, and dividing the product by the total number of students (not only those taking that qualification). This gives a measure of the average number of hours spent on that qualification across all 16-19 year olds. It should be noted though that we only use hours from those qualifications that young people have completed, so these trends are susceptible to changes in drop-out rates over time.

To illustrate our methodology with an example, if there are 1,000 students in a given year, and 100 of them take a qualification Z with 120 minimum guided learning hours, the *hours per student* of this qualification will be:

$$\text{Hours per student of qualification Z} = \frac{\text{100 students x 120 hours}}{\text{1000 students(total)}} = \frac{12{,}000}{1{,}000} = 12$$

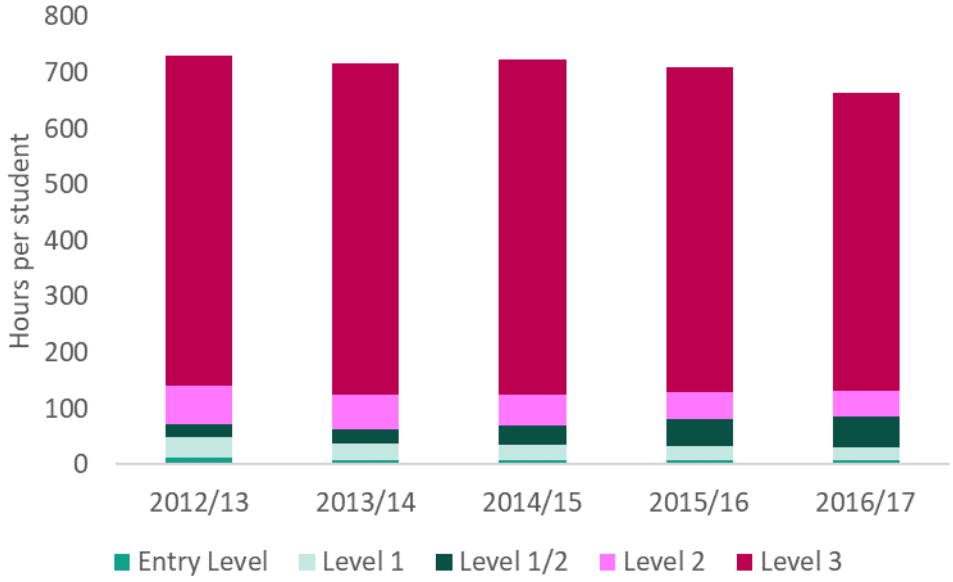
Figure 4.1 shows that the **average learning hours per student** has decreased over time. In 2016/17, 16-19 students were receiving 665 guided learning hours on average, down from 730 in 2012/13, i.e. a nine per cent decrease. The reduction in the number of guided learning hours per student was particularly acute in the last year of the time series.

Figure 4.1 Average learning hours per student (entire cohort), 2012/13-2016/17



Guided learning hours per student are down across all **qualifications**, with the exception of level 1/2 qualifications, mainly GCSEs. This is largely a consequence of providers being required to ensure that students without at least a grade 4 in GCSE English and maths (previously A*-C) retake these qualifications, in order to obtain funding. As a result, level 1/2 qualifications went up from 20 guided learning hours per student in 2012/13 to 53 in 2016/17.

Figure 4.2 Learning hours per student by qualification level (entire cohort), 2012/13-2016/17



At least in part because of their size, level 3 qualifications still account for the majority of learning hours, accounting for 532 learning hours per student in 2016/17 out of 665 (80 per cent). Level 2 qualifications decreased from 70 hours per student in 2012/13 to 47 in 2016/17; level 1 qualifications from 38 hours in 2012/13 to 23 in 2016/17; and entry level qualifications from 12 hours in 2012/13 to 9 in 2016/17.

As figure 4.3 shows, the balance between academic and vocational level 3 qualifications has shifted. In 2012/13, vocational qualifications represented 29 per cent of the overall guided learning hours of level 3 qualifications (170 hours per student). In 2016/17, they represented 38 per cent of the total (201 hours, 18 per cent more).

Figure 4.3 Learning hours per student of level 3 academic and vocational qualifications (entire cohort), 2012/13-2016/17

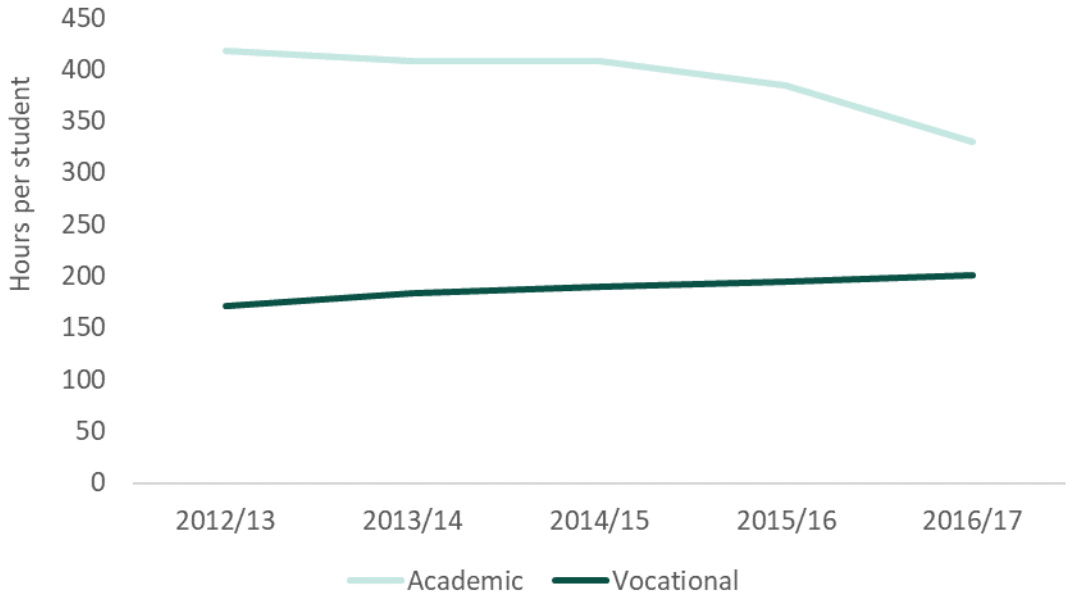
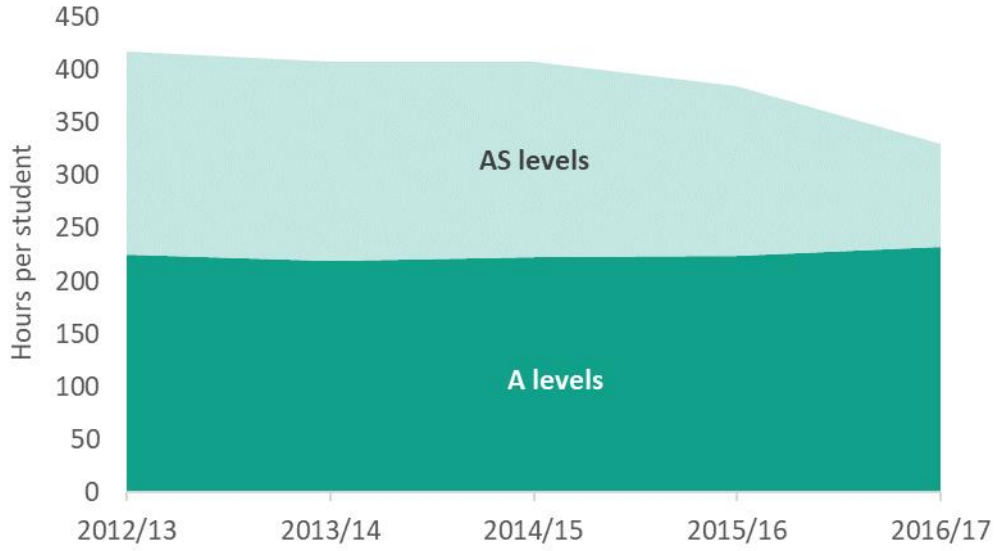


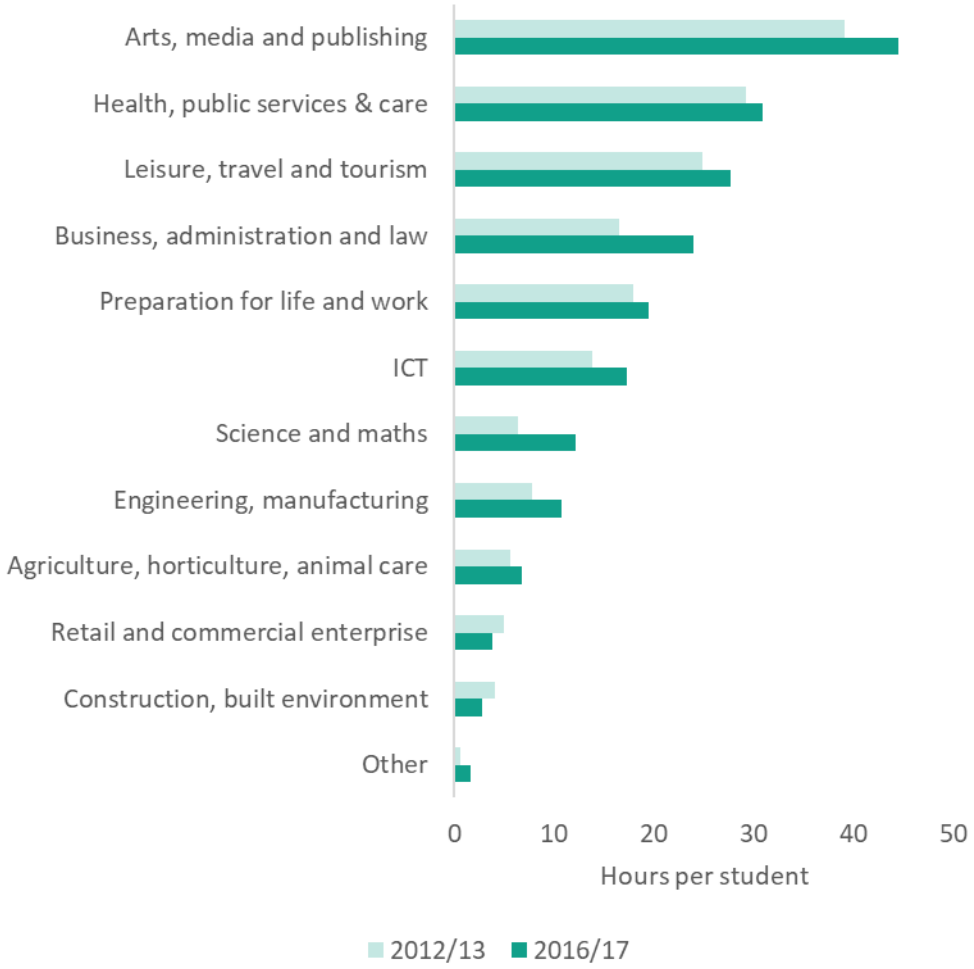
Figure 4.4 shows that the fall in learning hours in level 3 academic qualifications is largely the result of a significant decline in AS levels, in which learning hours fell from 192 learning hours per student at the beginning of the period to 97 in 2016/17, a 49 per cent decline. There has been a small increase in A levels alongside a sharp decrease in AS levels, following the decoupling of both qualifications from September 2015.[35] However, it is unclear whether decoupling can entirely explain the fall in hours, as the policy was not intended to decrease overall provision in academic qualifications.

Figure 4.4 Academic level 3 learning hours per student (entire cohort), by qualification type, 2012/13-2016/17



Trends differ by subject. Except for two subject groups (retail and construction), the learning hours of **vocational** qualifications in all subject groups increased. Learning hours per student in subjects in the science and maths group soared by 89 per cent over the period of study, while business, administration and law subjects grew by 45 per cent. Engineering experienced a sizeable increase of 38 per cent between 2012/13 and 2016/17. ICT and agriculture-related subjects also experienced growth. Currently, the three largest subject groups among vocational qualifications are arts, media, and publishing (44.5 hours per student), health, public services, and care (31 hours), and leisure, travel, and tourism (28 hours).

Figure 4.5 Learning hours per student (entire cohort), vocational level 3 qualifications by subject group, 2012/13 and 2016/17



Academic level 3 qualifications present a very different pattern. They shrank by 21 per cent over the period, from 418 to 331 hours per student, but this varies across subjects. Social science subjects decreased by only seven per cent (a third of the overall decrease), and science and maths by 14 per cent. Preparation for life and work (-79 per cent), leisure, travel, and tourism (-38 per cent), and retail (-37 per cent) experienced the sharpest falls.

Academic qualifications are dominated by science and maths, which accounts for 41 per cent of the learning hours received by students in academic level 3 qualifications. Social sciences follow at a considerable distance (14 per cent).

Figure 4.6 Learning hours per student (entire cohort), academic level 3 qualifications, by subject group, 2012/13 and 2016/17

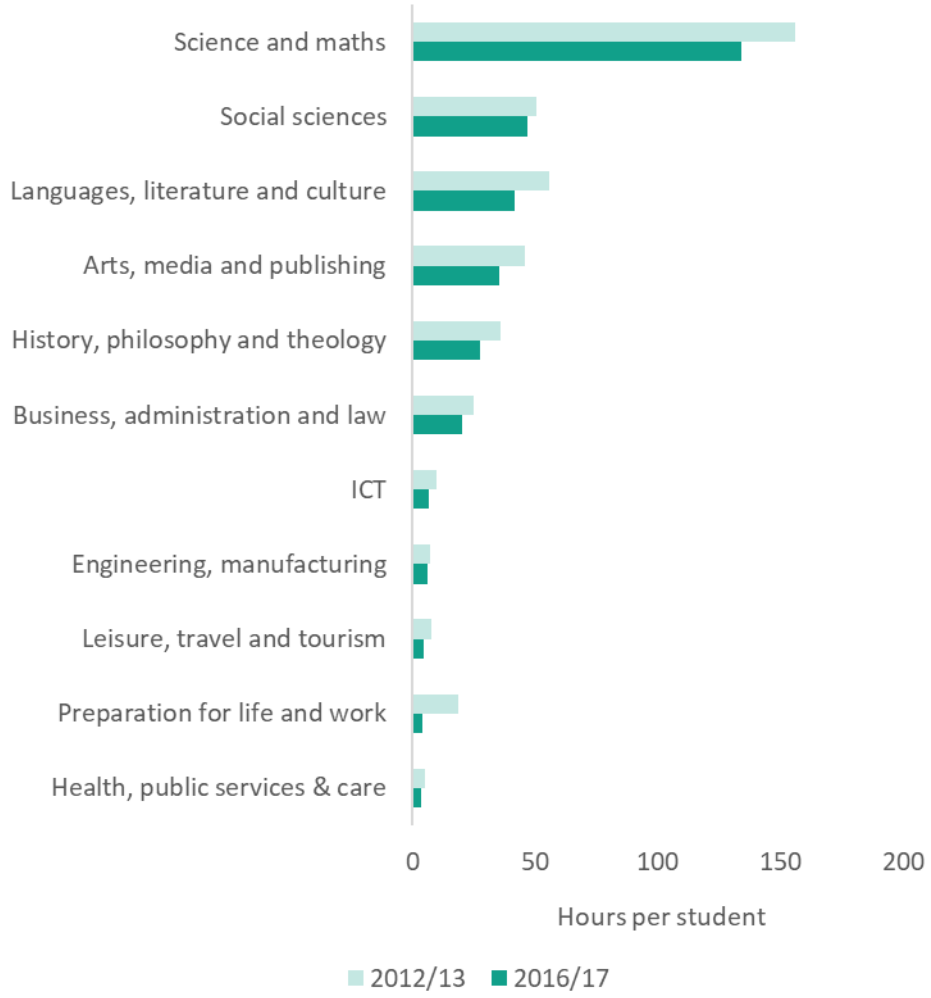
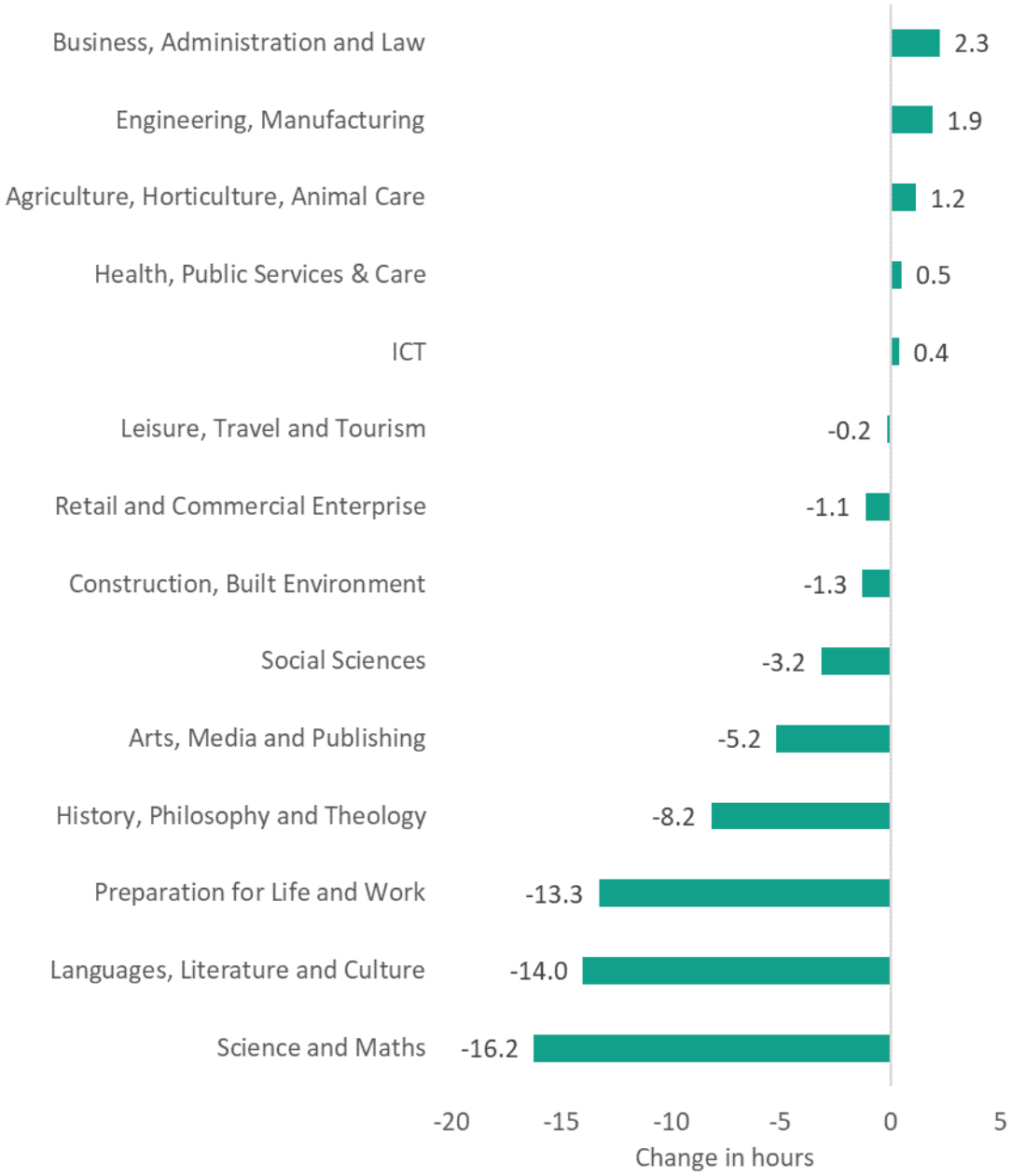


Figure 4.7 explores whether increases in the learning hours of vocational qualifications in particular subjects correspond to decreases in the same subjects among academic qualifications. Our analysis suggests that, for some subjects, take-up in vocational qualifications has partly compensated for the fall in take-up of academic qualifications. This is especially true for arts and media, business, ICT, leisure and tourism, health and public services, and engineering. However, there are subjects where the balance remains largely negative, as increases in vocational study have not compensated falls in academic take-up.

Figure 4.7 Change in learning hours per student (entire cohort) by subject, level 3 academic and vocational qualifications, 2012/13-2016/17

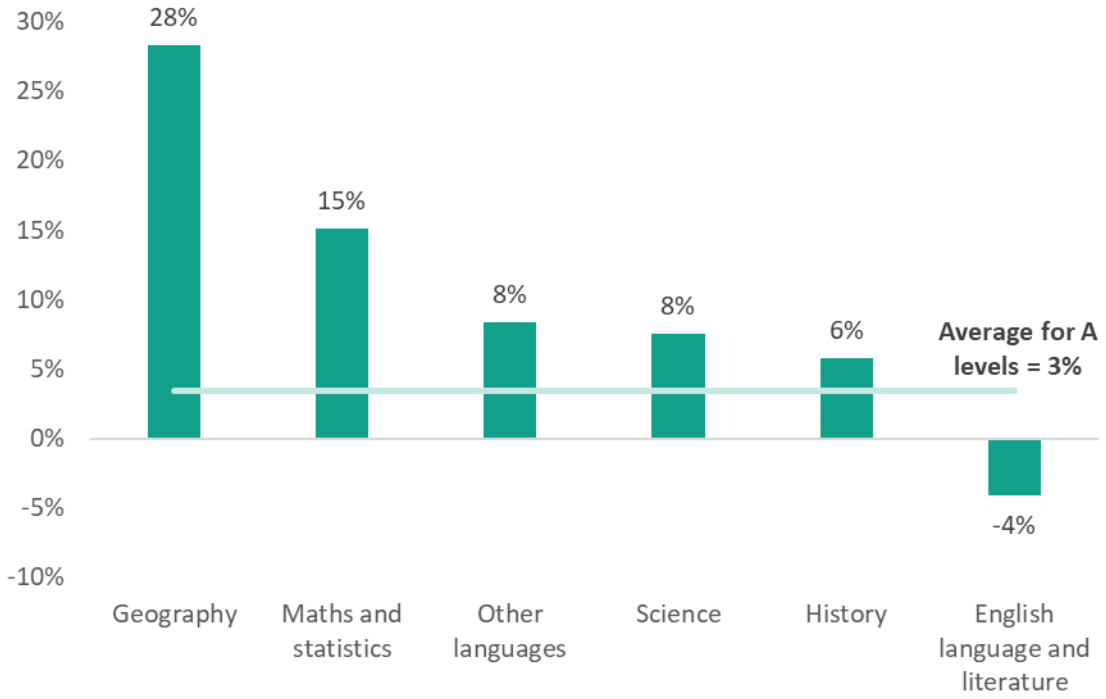
When academic and vocational level 3 qualifications are combined, we see that for most subjects there is a net decrease in the number of learning hours received by students. In 2016/17, students obtained 16.2 hours of guided learning in science and maths less than in 2012/13. Other subjects with sharp falls were language and literature (-14 hours), preparation for life and work (-13.3 hours), arts, media and publishing (-5.2 hours), and social science (-3.2 hours). Increases in other subjects did not compensate these falls: in 2016/17, students received 2.3 more hours of business, administration and law than in 2012/13, and increases also occurred in engineering and manufacturing (+1.9 hours), agriculture (+1.2 hours), health and public services (+0.5 hours), an ICT (+0.4). This suggests large cuts to provision have occurred during our period of study.

Figure 4.8 Change in learning hours per student (entire cohort) by subject, level 3 qualifications, 2012/13-2016/17



Despite the drop in the learning hours of all level 3 academic qualifications, full **A levels** learning hours increased by three per cent between 2012/13 and 2016/17, from 225 to 233 hours per student. Figure 4.8 shows that this growth has been exceeded in all but one of the subjects that are included in the Russell Group's list of "facilitating subjects", that is, subject choices that facilitate access to high-tariff universities. Their 2018 *Informed Choices* report includes maths and further maths, English literature, physics, biology, chemistry, geography, history, and languages (classical and modern).[36] Most noticeable is the 28 per cent increase in geography provision, followed by the 15 per cent increase in maths and statistics provision.[37] This highlights that factors other than funding are having a strong impact on qualification take-up, such as demand for subjects that increase the chances of being accepted to the most selective universities.

Figure 4.9 Average change in learning hours per student (entire cohort), A levels in facilitating subjects, 2012/13-2016/17



We have explored potential drivers of falls in learning hours by looking at whether providers with higher proportions of disadvantaged students or those suffering more acute funding falls have experienced sharper decreases in the learning hours received by students.

Figure 4.10 below shows the relationship between the proportion of high needs students in a provider and changes in the learning hours of qualifications. The correlation is very weak, as the trendline indicates, but if anything, the relationship between level of high needs students and changes in qualification sizes seems to be positive. This (weakly) positive relationship is likely to be due the fact that disadvantage funding has increased as a proportion of total funding.

Figure 4.10 Change in learning hours per student by institution between 2012/13 and 2016/17, and proportion of high needs students

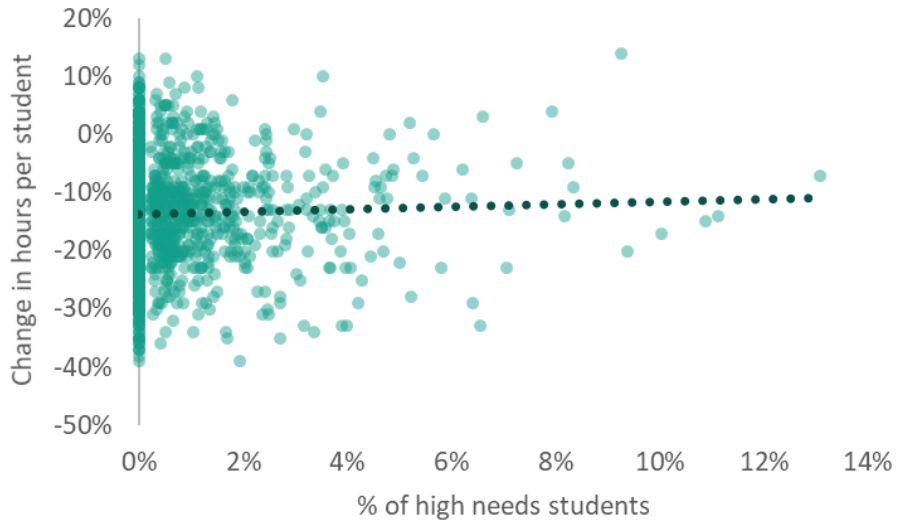
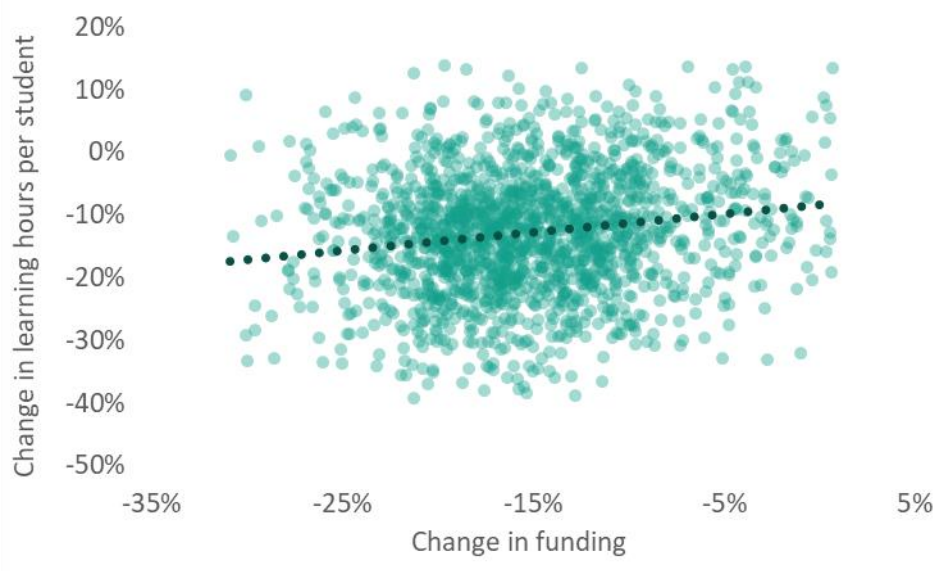


Figure 4.11 shows that providers where funding decreased the most were more likely to experience falls in provision. However, this relationship is very weak, suggesting that the main drivers for these changes have not been changes in funding levels. It might be the case, for example, that some providers have cushioned the impact of falls in funding on provision by incurring larger deficits.

Figure 4.11 Change in learning hours per student and funding per student by institution in real terms, 2012/13-2016/17



What do changes in provision mean for the labour market?

One of the objectives of this section is to understand if the trends in provision, whether funding-driven or not, match the changes in employment in relevant occupations. To do so, we have matched level 3 qualification subject data from the National Pupil Database to occupation trends from the Working Futures dataset, and have compared the changes that occurred between 2012/13 and 2016/17.

This approach has limitations, notably that some subjects cannot be matched to occupations. This is the case for subjects like history, philosophy and theology, science, and maths. Table 4.1 shows which subjects have been matched to which occupations.

Table 4.1 Equivalence between qualification subjects and occupations matched

Subject(s)	Occupation(s)
Education and training	Education
Construction and built environment	Construction
Retail and commercial enterprise	Wholesale and retail trade
Agriculture, horticulture, animal care	Agriculture
Engineering and manufacturing	Engineering
	Rest of manufacturing
ICT	IT
Business, administration, and law	Finance and insurance
	Real estate
	Professional services
Leisure, travel and tourism	Accommodation and food
Health, public services and care	Public administration and defence
	Health and social work
Arts, media and publishing	Arts and entertainment
	Media

The two charts below show that there is a weak but positive correlation between employment growth and the growth of vocational qualifications in relevant subjects, but less so in academic ones (A levels). While for vocational qualifications we were able to match data for all 10 subjects and occupations, this was possible for only seven A level subjects, as there was no sustained data for A levels taken in education and training, construction, and agriculture.

Figure 4.12 Change in learning hours of vocational level 3 qualifications by subject, matched to changes in employment of relevant occupation(s), 2012/13-2016/17

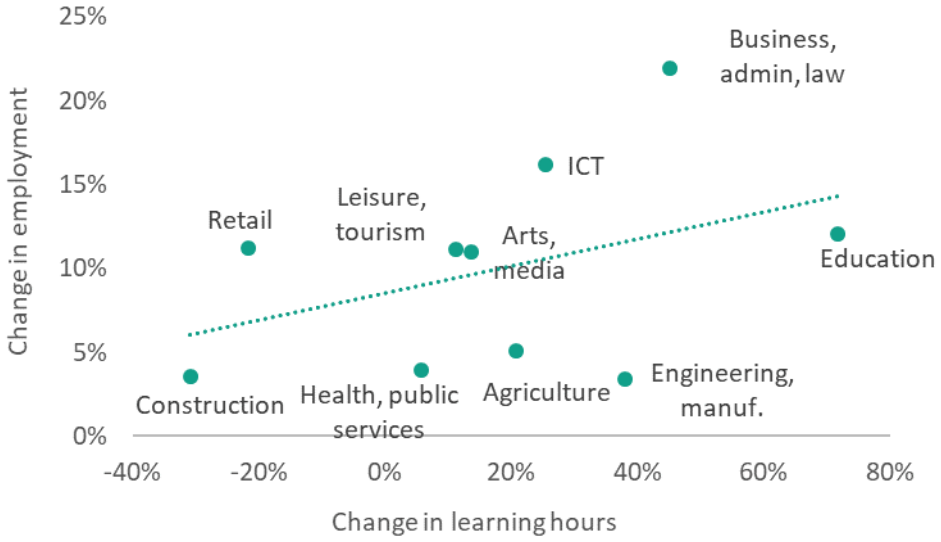
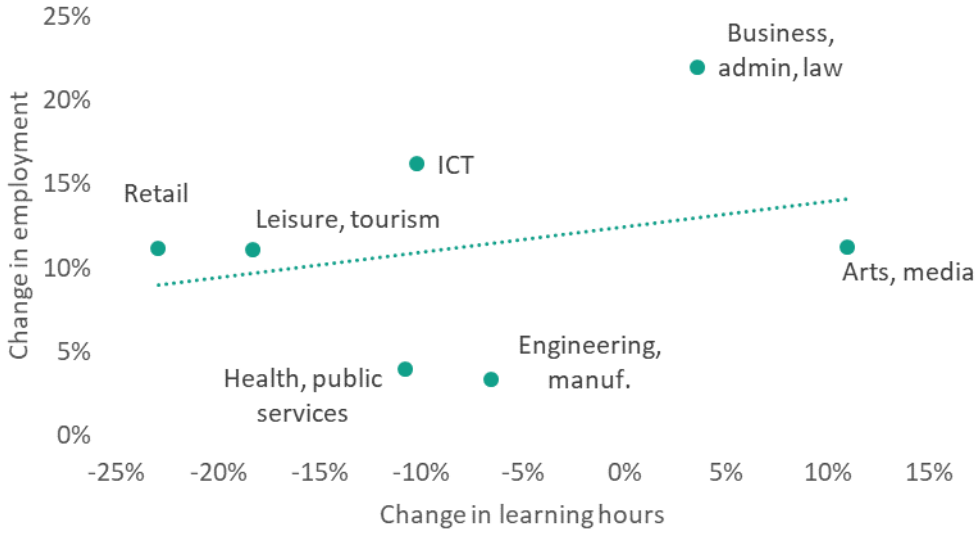


Figure 4.13 Change in learning hours of A level qualifications by subject, matched to changes in employment of relevant occupation(s), 2012/13-2016/17



There has been a strong increase in both learning hours and employment in business, administration and law. However, the relationship between employment growth and provision beyond this subject group is weaker. Our earlier analysis also suggests that growth in A levels has occurred in "facilitating subjects".

This does not necessarily show a detachment of A level provision from the needs of the labour market. First, because those 16-19 year olds studying academic qualifications are more likely to do further study than vocational students.[38] Second, because there are broader skills that can be developed in subjects that are not captured by our analysis, but are nonetheless valued by employers. According to the OECD's Adult Skills Survey (PIAAC), young people in the UK do not have better literacy or numeracy skills than older cohorts. The survey, that measures the level of skills of different age groups in a range of participant countries, suggests that, while in the OECD 16-19 year

olds are on average one of the age groups with highest literacy and numeracy skills, they constitute the lowest achieving group in England. This is certainly a cause for concern, especially as the labour market is set to change faster than in the past.[39] Employers have shown dissatisfaction with young people's basic skills and have stressed the need to improve literacy and numeracy skills. Last year's CBI/Pearson Education and Skills Survey found that one in four employers were not satisfied with the literacy and numeracy skills of young applicants, and that these skills were among the main considerations when recruiting young employees for 70 per cent of businesses. [40]

Therefore, even if subjects such as language, science, or maths cannot be directly matched to any particular occupation, they might still be crucial to fixing existing skill gaps.

Summary of findings and trends

The qualification landscape experienced significant change between 2012/13 and 2016/17. Our analysis found a fall in the guided learning hours received by students in 16-19 education. In 2012/13, students were receiving 730 hours of guided learning on average, while in 2016/17 it was 665 hours, a reduction of 9 per cent. However, this trend has not been even across the board. Our analysis suggests the following:

- **Level 3 dominates the learning hours in 16-19 provision, but only level 1/2 qualifications grew in recent years.** Level 3 qualifications account for 80 per cent of learning hours (532), followed by level 1/2 (54), level 2 (50), level 1 (23), and entry level (9). All levels experienced falls with the exception of level 1/2, most likely due to GCSE English and maths resits becoming a condition for 16-19 funding.
- **Though overall level 3 qualifications have fallen, vocational level 3 qualifications are on the rise**. In 2016/17, vocational qualifications represented 38 per cent of learning hours in level 3 provision, up from 29 per cent. However, rises in vocational qualifications did not compensate for falls in academic qualifications in most subjects.
- **There are large differences in most popular subject groups between vocational and academic level 3 qualifications**. While most popular level 3 vocational qualifications were in the subject groups of arts, media, and publishing (22 per cent of total hours), health, public services, and care (15 per cent), leisure, travel, and tourism (14 per cent), and business, administration, and law (12 per cent), the most popular academic subject groups were science and maths (41 per cent), social sciences (14 per cent), and languages, literature and culture (13 per cent). Vocational qualifications in business (+45 per cent), engineering and manufacturing (+38 per cent), and ICT (+26 per cent) experienced substantial growth. Among academic qualifications, social sciences (-7 per cent) and science and maths (-14 per cent) shrank less than average.
- **Provision in most subjects has shrunk**. When level 3 academic and vocational qualifications are combined, we see large decreases in the learning hours per student in most subjects, notably in science and maths (-16.2 hours), language and literature (-14), and preparation for life and work (-13.3). **A levels in "facilitating subjects" increased over the period**. Although all level 3 academic qualifications, which would include AS levels and other academic qualifications, shrank between 2012/13 and 2016/17, the opposite is true for full A levels, which increased by three per cent, from 225 to 233 hours. The subjects that grew

more than the average for all A levels were in Russell Group's list of facilitating subjects, with the exception of English language and literature.

- **There is a weak relationship between changes in provision and changes in funding**. On average providers with the largest falls in funding also saw the largest falls in hours. However, this relationship is very weak, suggesting other factors are have had a significant impact on provision.
- **Other than in business qualifications, the relationship between changes in subject take-up and growth in corresponding employment sectors appears to be weak.** This is especially true for vocational qualifications. However, there have been surges in the A levels that facilitate access to the most selective university, demonstrating the impact of factors other than funding on qualification take-up.

Chapter 5. Further education teaching workforce trends

One of the aims of this report is to understand whether, under different funding regimes, the composition and the working conditions of the teaching workforce in 16-19 providers has changed. In the past, both the National Audit Office and the Association of Colleges have warned that decisions such as recruitment patterns cannot be detached from the overall financial sustainability of providers. [41] This chapter explores this by focusing on two main aspects:

- **Teacher wages.** We investigate whether the wages of teaching staff have changed over our period of study.
- **Qualifications**. We explore whether qualifications held by teaching staff have experienced substantial changes, and if so, what type of changes.

In this chapter, only data for further education providers will be analysed, due to limitations with school-related data. Where possible, we offer trends for further education colleges and sixth form colleges separately. We use the Staff Individualised Record (SIR) Insights, years 2010/11 (administered by the extinct Learning and Skills Improvement Service) and 2016/17 (Education and Training Foundation). The SIR data collects information from the workforce in the further education sector.

Using the SIR data for these two years has a number of limitations, as data collection by providers was mandatory for the first year of data but it is now voluntary. As a result, the sample composition of both datasets might have changed. In 2016/17, data covering 72,000 members of staff in further education institutions was submitted by further education providers, down from 217,000 in 2010/11. In 2010/11, SIR data only considered colleges, while in 2016/17 other providers were included. We have only selected providers with data returns in both years. In addition, the variables recorded have changed overtime. Therefore, numbers should be read as proportion of staff based on the sample of providers who have submitted data. The focus of this section is teaching staff in further education and sixth form colleges. [42] [43]

Teacher wages

In this section, we explore changes in wages in the further education sector. As discussed before, sixth form colleges have experienced funding trends closer to the school sector than to the rest of the further education sector. It has also been noted that further education colleges provide 16-19 education and adult learning, with the latter funded at lower rates than 16-19 education.[44] We therefore provide figures separately for sixth form colleges and further education colleges.

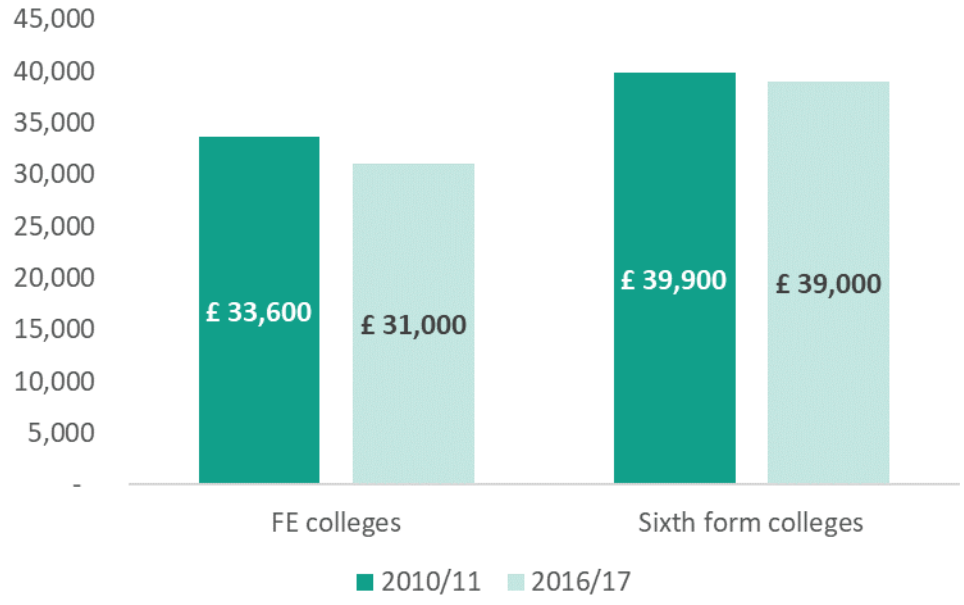
To provide numbers that are as representative of the sector as possible, we have only selected wage data for full-time teaching staff whose contract did not terminate during the academic year when the data was collected, in providers that reported data in both 2010/11 and 2016/17. While this reduces our pool of respondents, it is likely to strengthen the representativeness of our results.

Taking further education and sixth form colleges together, we observe an eight per cent real-terms decrease in the average teaching wage, from £33,900 in 2010/11 to £31,300 in 2016/17. However, the fall was greater in further education colleges than in sixth form colleges. Wages among teachers in further education colleges went down by eight per cent, from £33,600 to £31,000. Salaries in sixth

form colleges fell less and from a higher starting point. In 2010/11, a teacher in a sixth form college was earning an average of £39,900, while in 2016/17 the average salary was £39,000 (-2 per cent), closer to the average teacher wage in secondary education.[45] This means that by 2016/17, teachers in sixth form colleges were earning 26 per cent more than teachers in further education, on average. It is important to consider, however, that there were a lot fewer responses from sixth form colleges than from further education colleges, and that therefore our analysis of these institutions might be less representative than for further education colleges.

Figure 5.1 Overall average wage of full-time teaching staff in further education and sixth form colleges, 2010/11 and 2016/17 (2016/17 prices)

Figure 5.2 Average wage of full-time teaching staff in further education and sixth form colleges, 2010/11 and 2016/17 (2016/17 prices)



Our analysis suggests that wages in further education colleges have decreased substantially since 2010/11, despite already being lower than in secondary schools. In November 2010, the average

teacher salary in secondary schools was £39,100 (2016/17 prices), or 15 per cent higher than in further education colleges. In November 2016, the average teacher salary in secondary schools was £36,700, 17 per cent higher than in further education colleges. This means that the wage gap between further education colleges and secondary schools has grown over time.[46] It is important to consider that, while for further education colleges and sixth form colleges we use SIR data, which is not compulsory for colleges to provide, data for schools comes from the school workforce census, which is compulsory. This means that numbers are not directly comparable.

Impacts of funding changes on wages

Figure 5.3 shows the correlation between changes in funding per student in colleges, and changes in the average teacher wage. We use data from the SIR to report changes between 2010/11 and 2016/17, while for funding we use 2011/12 and 2016/17 data, due to data limitations which make 2010/11 funding data not comparable with other years.

Our analysis shows that there is a positive but weak correlation between funding changes and changes in the average teacher wage. The significant amount of variation suggests that other factors are having a more significant impact.

Figure 5.3 Change in teacher wage in colleges (2010/11-2016/17) v change in funding per student, 2016/17 prices (2011/12-2016/17)

Qualifications

In this section we consider whether teachers' qualifications levels have changed in recent years. Figure 5.4 shows that there have been some changes regarding teaching staff's highest relevant teaching qualification levels. The proportion of teachers who said they have a PGCE (level 7) increased from 29 per cent in 2010/11 to 34 per cent in 2016/17. Conversely, the number of teachers with a bachelor degree and qualified teacher status went down from nine to three per cent, and the proportion with Certificates of Education fell from 29 to 24 per cent. The increase experienced by other qualifications, which grew from three to 11 per cent, is explained by more staff holding a level 5 qualification allowing them to teach in the further education sector.

Figure 5.4 Highest relevant teaching qualification held by teaching staff in colleges, 2010/11 and 2016/17

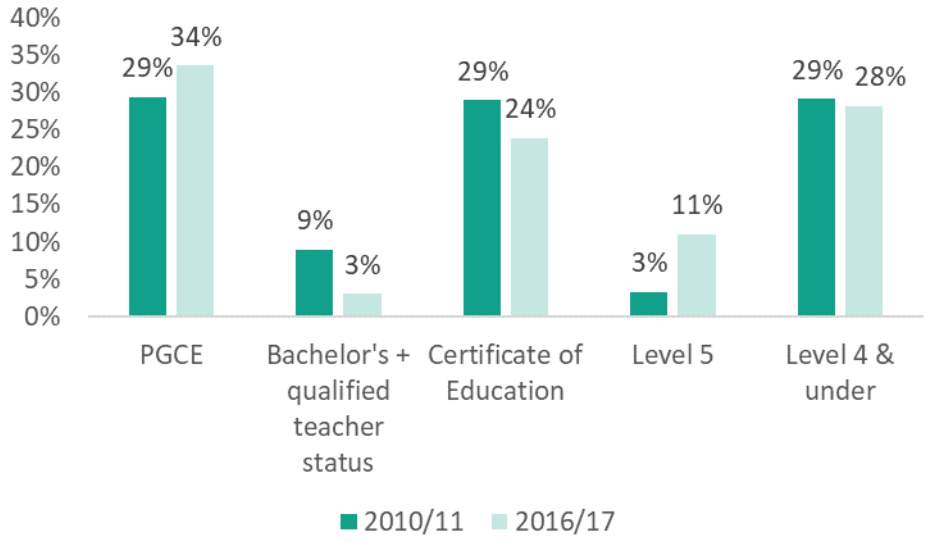
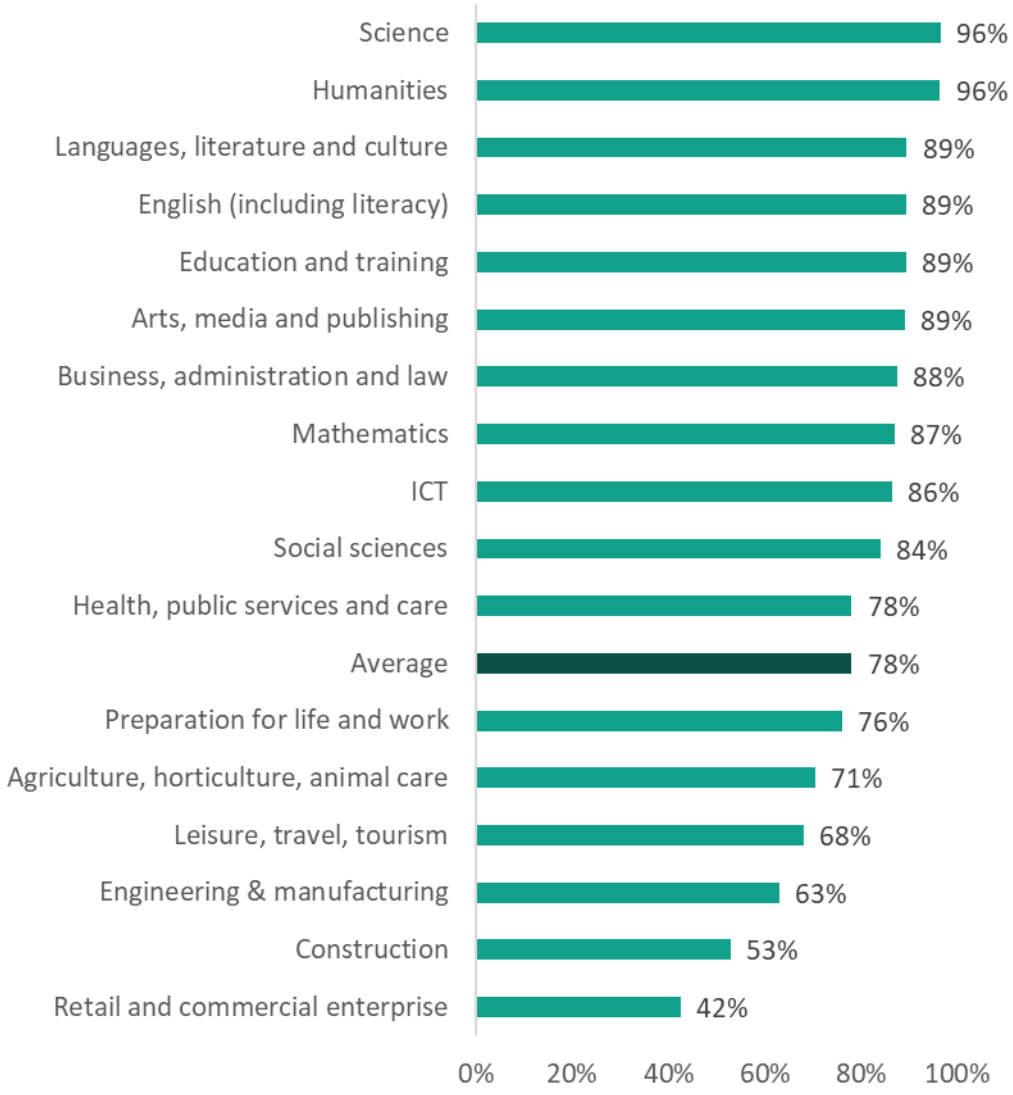


Figure 5.5 shows the proportion of teaching staff in colleges with relevant level 4 or higher qualifications (i.e. generally at least one level above that which they are teaching in this phase) in their area of teaching in 2016/17. This is different from the previous figure, as it also reflects non-teaching qualifications. These figures are unavailable for earlier years.

On average, 78 per cent of teaching staff reported holding a level 4 or higher qualification in their area of teaching, but this ranged from 96 per cent among science teachers to 42 per cent among those teaching retail-related subjects. Fewer members of staff teaching construction and engineering subjects, reported having qualifications at level 4 or higher than average. More Science, English and maths teachers reported having level 4 or higher qualifications than the average (96, 89 and 87 per cent respectively).

Figure 5.5 Proportion of teaching staff in colleges holding a level 4+ qualification in the main area of teaching, 2016/17



Summary of findings and trends

This section has presented an analysis of further education workforce SIR data insights (2010/11 and 2016/17) to identify trends in teacher's qualifications and working conditions in colleges. It has already been noted that these datasets have limitations. further education providers are no longer obliged to collect workforce data, and sample sizes and variables have changed over time, so trends need to be taken with caution.

In summary, our analysis suggests the following:

Teacher wages

- The **average wage went down by eight per cent** across further education colleges and sixth form colleges, from £33,900 to £31,000. The decrease was less severe in sixth form colleges (-2 per cent) than it was in further education colleges (-8 per cent). In 2016/17, teachers in

sixth form colleges were earning 26 per cent more (£39,000) than teachers in further education colleges (£31,000) on average.

Links between funding and working conditions

- Our analysis suggests that **providers where falls in funding were more severe were more likely to experience negative rates of salary growth**. However, there is only a very weak relationship between the two.

Qualifications

- **78 per cent of respondents who were teachers in colleges held a level 4+ qualification in the subject they taught**. Some of the most technical and vocational subjects are at the lower end of the continuum: construction (53 per cent) and engineering and manufacturing (63 per cent). 89 per cent of English and 87 per cent of maths teachers respectively reported to have a level 4+ relevant qualification, while 96 per cent of science teachers did so.
- In terms of highest teaching qualification held, there has been **an increase in level 7 Postgraduate Certificate of Education** (from 29 to 34 per cent) and in other qualifications (mainly level 5 qualifications allowing to teach in further education, from three to 11 per cent), while those with a Certificate of Education fell from 29 to 24 per cent and those with only a bachelor degree fell from nine to three per cent.

Chapter 6. Ofsted inspections trends

This section aims to understand whether the quality of education, as judged by Ofsted, in 16-19 providers has changed under different funding regimes, and if so, whether it has improved or worsened over time.

We use the outcomes of Ofsted's inspections of 16-19 providers inspected in each year, from 2010/11 to 2017/18. As well as providing overall effectiveness grades, Ofsted assess a number of dimensions of education provision: effectiveness of leadership and management; quality of teaching, learning and assessment; personal development, behaviour and welfare; and outcomes for children and learners. They also assess the effectiveness of 16-19 provision, adult learning programmes, or apprenticeships separately, where they exist. The common inspection framework in place is currently being reviewed, and Ofsted launched a consultation in January 2019 on changes to be introduced from academic year 2019/2020.[47]

This chapter will focus on maintained schools and academies, and further education colleges (general and specialist colleges). Ideally, there would be consistent data on the quality of 16-19 provision for our period of study, but this is unfortunately not the case, for a number of reasons. First, 16-19 provision effectiveness data for schools is unavailable for academic years 2012/13 and 2013/14, while for colleges it is missing for academic years 2010/11 and 2011/12. Second, especially after a new common inspection framework was introduced in September 2015, providers previously judged "good" or "outstanding" receive a short inspection, where only the overall effectiveness is assessed. This suggests that schools and colleges that had previously been judged "inadequate" or "requires improvement" would be overrepresented. [48]

In order to provide a picture of the evolution of quality in schools and colleges that is as representative of the sector as possible, this chapter considers the following range of indicators:

- **Effectiveness of 16-19 provision**. We first look at trends in sixth form provision judgements, to understand the distribution of providers between the different grades, namely "outstanding", "good", "requires improvement", or "inadequate".
- **Comparative grading of 16-19 provision.** For providers with 16-19 effectiveness grades, we compare their sixth form provision to their overall effectiveness, to understand whether their 16-19 offer is deemed better, equal, or worse than their overall provision. Because this approach compares grades within a single inspection, it is likely to be less affected by changes to the Ofsted inspection framework overtime. However, its comparative nature means it cannot give an absolute measure of quality.

All previous caveats imply that analysing the relationship between funding trends and the quality of provision is challenging, and whilst we do undertake such analysis, the results should be treated with caution.

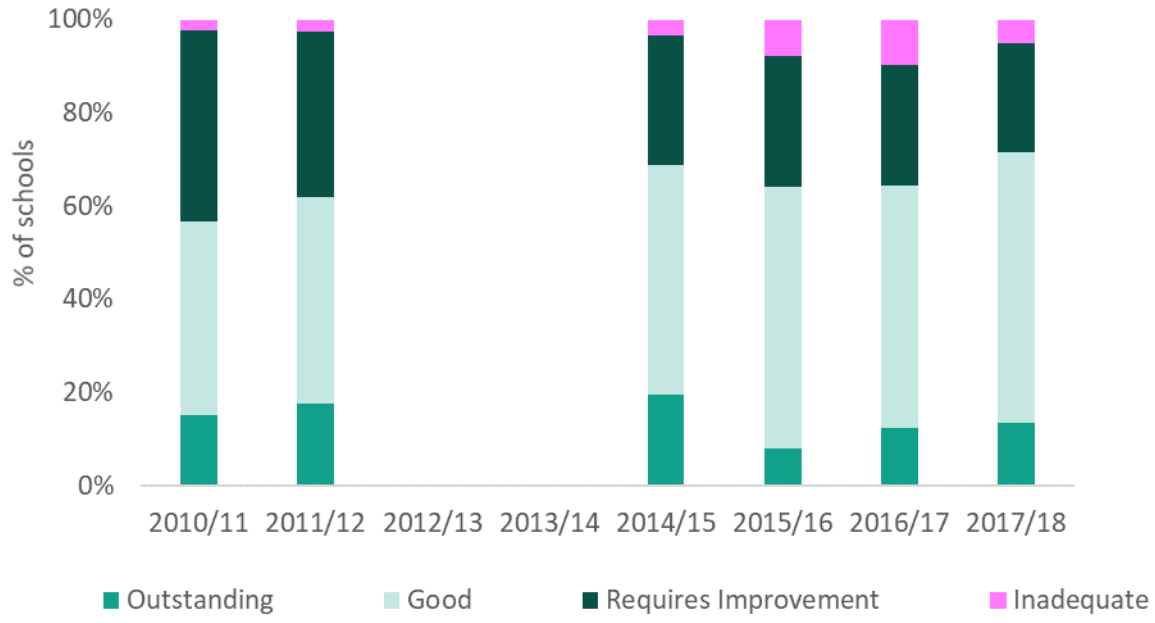
Schools with sixth forms

The effectiveness of sixth form provision in schools

Although the distribution of schools across the four grades varies between years and it is difficult to find sustained trends, the proportion of schools whose 16-19 provision is judged "good" or "outstanding" is at a record high: 72 per cent received one of the two top grades in 2017/18, compared to 57 per cent in 2010/11, and up from 64 per cent in 2015/16 and 2016/17 (figure 6.1).

On the other hand, the proportion of schools with "inadequate" 16-19 provision has gone up substantially, from two per cent in 2010/11 and three per cent in 2011/12, to 10 per cent in 2016/17 and five per cent in 2017/18. However, the fact that only schools with previous grades lower than "good" are reinspected in full might partially explain this trend: fewer than 400 schools received 16-19 provision judgements in 2017/18, down from over 600 in 2010/11.

Figure 6.1 16-19 provision effectiveness of state-funded schools, 2010/11-2017/18

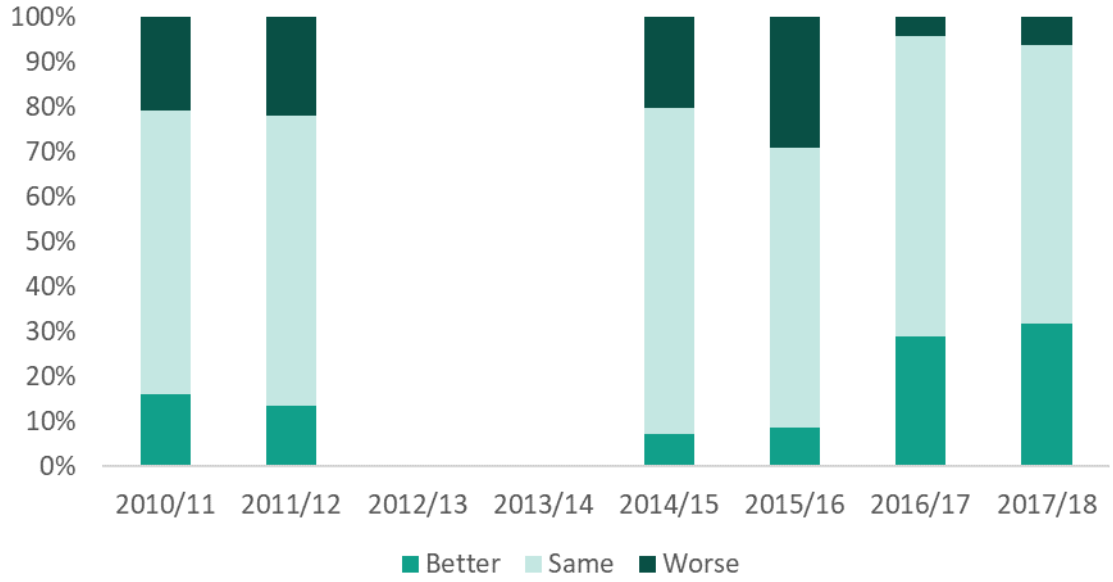


How do the grades of 16-19 and overall provision of schools compare?

One of the aims of this section is to investigate whether, given funding for 16-19 provision in schools has fallen faster than funding for 11-16 provision, schools' judgements for 16-19 provision are better or worse than their overall provision.

Figure 6.2 shows that in academic years 2010/11 and 2011/12, around two thirds of schools had the same 16-19 provision and overall effectiveness grades, while around one in five had worse grades for 16-19 education and around one in six had better grades. This trend reversed from 2016/17, when the proportion of schools that had similar 16-19 and overall effectiveness remained stable but the proportion of schools with worse 16-19 than overall provision decreased substantially, and the proportion with better 16-19 than overall provision more than doubled. In 2017/18, 62 per cent of schools analysed had the same 16-19 and overall provision grade, a third had better 16-19 grades, and only six per cent obtained worse grades for their 16-19 provision.

Figure 6.2 Schools with sixth form provision with better, worse, and same grades for their 16-19 provision than overall, 2010/11-2017/18



There are two potential interpretations of this trend. First, that despite faster falls in funding, 16-19 provision has improved relative to overall, and therefore 11-16, provision. Second, given that the proportion of schools with better 16-19 than overall provision experienced a steep change in 2016/17, when low-performing providers became more likely to be reinspected, it might also suggest that providers with lower levels of overall effectiveness have better 16-19 provision (relative to their overall provision) than higher performing ones. However, it remains the case that there is no evidence that in schools 16-19 provision has worsened relative to 11-16 provision, despite funding for 16-19 provision falling faster.

Further education colleges

When considering the effectiveness of further education colleges (henceforth, colleges) with 16-19 provision, it is necessary to point out that the number of inspections is smaller compared to that of schools, as there are fewer providers.

16-19 effectiveness of colleges

As figure 6.3 shows, there is no clear trend over the period. Some of the big variations over time might be explained by the low number of inspections, and partly by changes to the common inspection framework. For example, in 2014/15, when a large decrease in the proportion of colleges rated “good” or “outstanding” occurred, there were only 47 colleges inspected, down from 77 in 2013/14.

Figure 6.3 16-19 provision effectiveness of colleges, 2012/13-2017/18

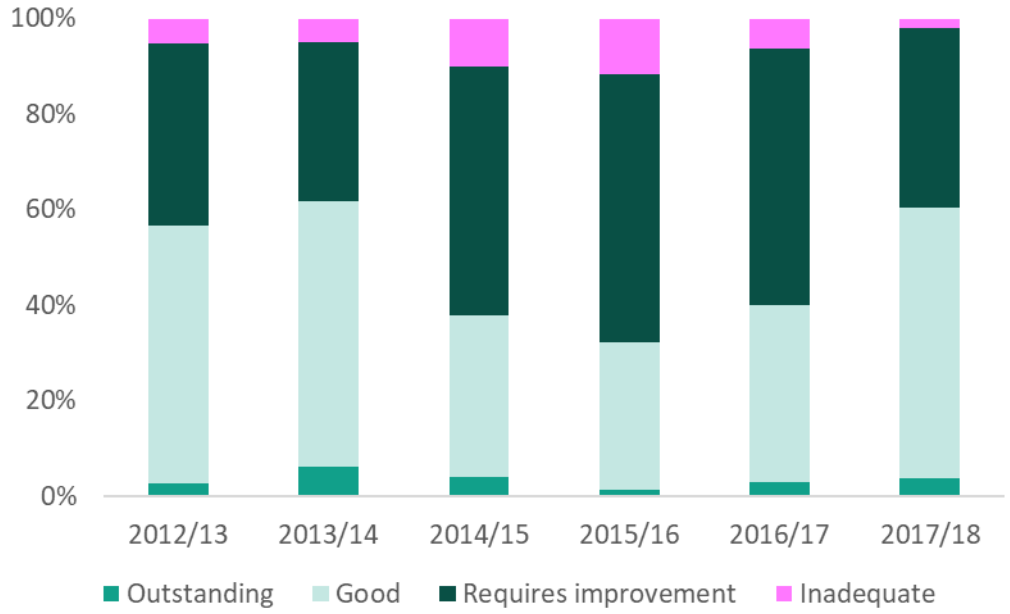
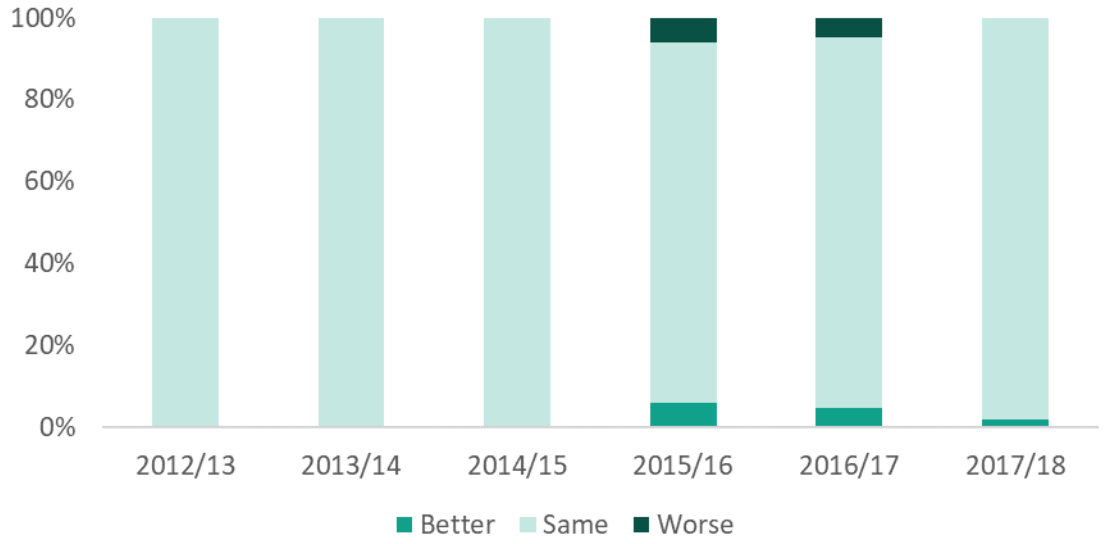


Figure 6.3 shows that, in 2017/18, 60 per cent of colleges were judged "good" or "outstanding" for their 16-19 provision, up from 57 per cent in 2012/13 and 32 per cent in 2015/16. This means that a lower proportion of colleges received one of the two top grades for their 16-19 provision than schools. Only 2 per cent of colleges were judged "inadequate" for their 16-19 provision in 2017/18, down from 12 per cent in 2015/16.

How do 16-19 and overall effectiveness of colleges compare?

Unlike schools, almost every college with a full inspection had the same overall and 16-19 effectiveness grades, ranging from 88 per cent in 2015/16 to 100 per cent in 2012/13, 2013/14, and 2014/15. Both in 2015/16 and 2016/17, the proportion of providers with worse 16-19 effectiveness than overall grades was the same as providers with better 16-19 effectiveness: six per cent in 2015/16 and five per cent 2016/17. In the last year of the time series, 98 per cent of colleges had the same grade for 16-19 than for their overall provision, while in two per cent it was better, and in no college 16-19 provision received a worse grade than their overall judgement.

Figure 6.4 Colleges with 16-19 provision with better, worse, and the same grades for their 16-19 provision than overall, 2012/13-2017/18



The link between Ofsted inspections' outcomes and funding changes is very weak

Here we investigate the relationship between changes in funding and changes in 16-19 effectiveness i.e. whether providers' inspection grades have improved, worsened, or stayed the same between 2010/11 and 2017/18 in schools and colleges. To do so, we look at the most recent 16-19 inspection outcomes in both academic years, rather than inspections that took place only in these academic years. Otherwise, the number of providers with inspections in both years would be too small.

Figure 6.5 Change in funding per student for schools and colleges whose 16-19 effectiveness got worse, better, or stayed the same between 2010/11 and 2017/18

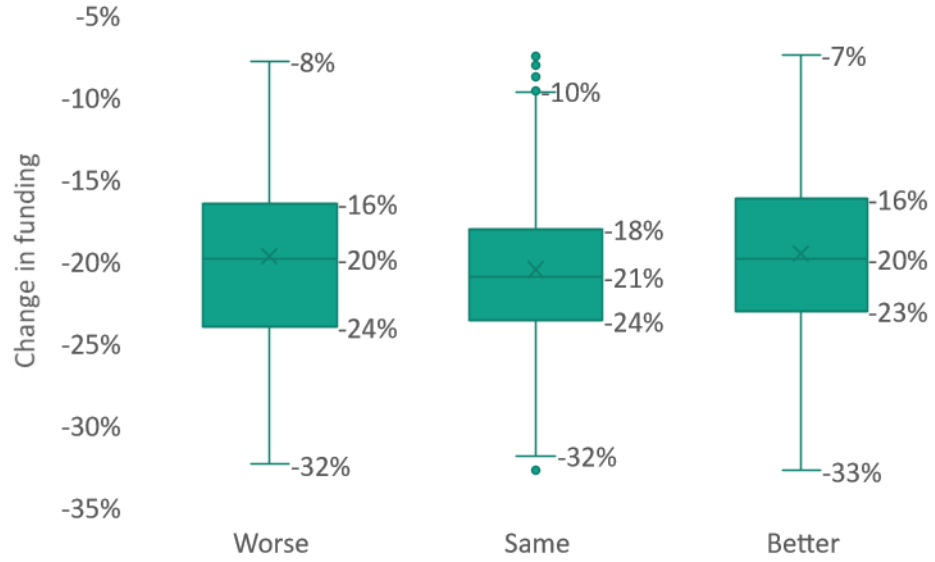


Figure 6.5 shows that the differences in funding trends are negligible. While it is true that those who obtained better Ofsted grades experienced slightly smaller funding decreases, the difference is too small to be meaningful.

Summary of findings and trends

There seems to be little or no relationships between recent changes in funding and the quality of 16-19 provision. However, Ofsted grades are lower for further education colleges than they are in schools. Capturing the quality of 16-19 education has become more challenging as, due to recent changes to the inspection framework, providers with poor inspection outcomes are inspected more often. In addition, institutions that receive "good" or "outstanding" grades will only receive a short inspection in the future, which will not contain information on the effectiveness of their 16-19 provision, unless there is evidence of provision worsening.

With these caveats in mind, our analysis suggests that:

- **The percentage of schools with their 16-19 provision judged "good" or "outstanding" has increased**, and 72 per cent received one of the two top grades in 2017/18.
- **However, the number of schools with "inadequate" 16-19 provision has also increased over the period**. In 2010/11, only 2 per cent of schools were judged "inadequate" for their 16-19 provision, compared to 10 per cent in 2016/17 and 5 per cent in 2017/18.
- **In recent years, the number of schools with sixth forms where 16-19 effectiveness is judged better than their overall grade has increased**. In 2017/18, a third of schools with 16-19 provision received a better grade for their 16-19 effectiveness than they did for their overall provision, up from 14 per cent in 2011/12. On the other hand, the proportion of schools whose 16-19 provision obtained worse judgements than their overall grade went down from 22 per cent in 2011/12 to only 4 per cent in 2016/17 and six per cent in 2017/18.
- **The proportion of colleges with "good" or "outstanding" 16-19 provision increased over the period too**; just under 60 per cent were judged "good" or "outstanding" in 2017/18, up from 37 per cent in 2015/16. The number of providers with "inadequate" 16-19 provision went down from 12 per cent in 2015/16 to two per cent in 2017/18. **However, 16-19 provision seems to be, on average, worse rated in colleges than it is in schools**.
- There seems to be very small differences in the quality of 16-19 provision in colleges and their overall provision, with nearly all providers obtaining the same grades in both judgements. There certainly appears to be no trend toward better or worse 16-19 provision, relative to overall provision.
- **Our analysis found almost no correlation between falls in 16-19 funding and effectiveness.**

Conclusions and discussion

This report has reviewed recent policy changes in the 16-19 education space, identifying funding trends between 2010/11 and 2018/19 and attempting to understand the relationship between these trends and the financial stability of 16-19 providers, the breadth and depth of provision, the characteristics of the teaching workforce, and the quality of provision.

Our analysis has shown that funding for 16-19 funding decreased faster than in other phases of education between 2010/11 and 2018/19. Funding per 16-19 student fell by 16 per cent in real terms compared to 10 per cent in the whole school sector.

Over this nine-year period, the financial health of 16-19 providers has deteriorated, with many more schools, academies, further education colleges and sixth form colleges in deficit than in 2010/11. This report shows that deficits of schools with 16-19 provision are larger than in schools without 16-19 provision.

Students are receiving fewer learning hours today than in 2012/13, especially after a sharp decline in academic qualifications after the decoupling of AS and A levels, which was not compensated with increases in other forms of education or training. This is concerning as upper secondary curriculum in England is narrow compared to international top performers, and as England is one of the few countries in the OECD where young people have lower basic skills than any other age group.

Wages in the sector have decreased following falls in funding. This is particularly true for further education colleges, where salaries where already lower than in schools but have seen an additional eight per cent reduction. The fall seems to have been milder in sixth form colleges.

Ofsted judgements of 16-19 provision seem to have improved between 2010/11 and 2018/19, although changes to the common inspection framework make data from different years not fully comparable. Fewer colleges receive one of the two top grades for their 16-19 provision compared to schools.

In view of our findings, policymakers should give consideration to the following **recommendations**:

Review the adequacy of 16-19 funding. Funding for this phase of education has declined substantially more than in primary and secondary education, despite being funded at higher rates in the past. There seems to be little rationale for this change, and our research shows that the sector as a whole is in worse financial shape and that provision has shrunk. The government should ensure that the current 16-19 funding review looks at the adequacy of funding for this phase, to understand whether current funding rates can sustain quality provision in the long term without further jeopardising the sector's financial sustainability.

Address the narrowness of 16-19 education. Students are generally receiving fewer learning hours than in previous years. The decoupling of AS and A levels has resulted in a dramatic fall in AS levels, that has not been compensated with additional provision. Given that the 16-19 curriculum in England was already narrow compared to top-performing countries, this is likely to further compromise the breadth of post-16 education. With relevant international studies showing that England stands out for the low levels of basic skills of its young people, the government should

assess the impact of 16-19 funding changes on curriculum breadth and ensure that young people have a good choice of high quality post-16 academic and vocational qualifications.

Ensure that future funding allocations do not leave disadvantaged students worse off. Student support has faced a dramatic fall, and despite providers attracting more funding to compensate for challenging intakes, disadvantaged students do not seem to be in providers where learning hours have been protected. There is also a scarcity of evidence of whether the decline in 16-19 funding has exacerbated the gaps between disadvantaged students and their more affluent peers. The government should review the impact of funding changes on disadvantaged young people and ensure that future funding policy works to close the disadvantage gap.

Bibliography

Andrews, Jon. 'School Revenue Balances in England'. Education Policy Institute, 2019. https://epi.org.uk/wp-content/uploads/2019/01/School-Revenue-Balances-in-England_EPI.pdf.

Andrews, Jon, and Tom Lawrence. 'School Funding Pressures in England'. Education Policy Institute, 2018. https://epi.org.uk/wp-content/uploads/2018/03/School-funding-pressures_EPI.pdf.

Association of Colleges. 'AoC 2018 Report on College Finances', 2018. https://www.aoc.co.uk/sites/default/files/AoC%20report%20on%20college%20finances%202018%2014.9.18.pdf.

Bakhshi, Hasan, Jonathan M Downing, Michael A Osborne, and Philippe Schneider. *The Future of Skills: Employment in 2030*. United Kingdom: Pearson, 2017.

Belfield, Chris, Christine Farquharson, and Luke Sibieta. '2018 Annual Report on Education Spending in England'. The IFS, 17 September 2018. https://doi.org/10.1920/re.ifs.2018.0150.

Britton, Jack, and Lorraine Dearden. 'The 16 to 19 Bursary Fund: Impact Evaluation', 2015.

CBI. 'Educating for the Modern World. CBI/Pearson Education and Skills Annual Report', 2018. http://www.cbi.org.uk/index.cfm/_api/render/file/?method=inline&fileID=12087B3C-FD5F-497B-908E5285EA942928.

Dearden, Lorraine, Carl Emmerson, Christine Frayne, and Costas Meghir. 'Conditional Cash Transfers and School Dropout Rates'. *Journal of Human Resources* 44, no. 4 (2 October 2009): 827–57. https://doi.org/10.3368/jhr.44.4.827.

Department for Education. '16-19 Funding Formula Review. Funding Full Participation and Study Programmes for Young People', 2012. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/180961/EFA-00073-2012__16-19_funding_policy_document.pdf.

———. 'Academies Spend Data - Notes'. Accessed 6 March 2019. https://webarchive.nationalarchives.gov.uk/20130404125700oe_/http://www.education.gov.uk/schools/performance.

———. 'Funding for the Delivery of T Levels'. GOV.UK. Accessed 7 March 2019. https://www.gov.uk/government/consultations/funding-for-the-delivery-of-t-levels.

———. 'Raising the Participation Age'. GOV.UK, 2012. https://www.gov.uk/government/collections/raising-the-participation-age.

———. 'Review of Post-16 Qualifications at Level 3 and below in England', 2019. https://consult.education.gov.uk/post-16-qualifications-review-team/post-16-level-3-and-below-qualifications-review/.

———. 'Review of Post-18 Education and Funding. Terms of Reference', 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/682348/Post_18_review_-_ToR.pdf.

———. 'Revised A Level and Other 16-18 Results in England, 2017/2018', 2019.

———. 'School Workforce in England: November 2017', 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719772/SWFC_MainText.pdf.

Education and Skills Funding Agency. 'Adult Education Budget: Funding Rates and Formula 2018 to 2019'. GOV.UK, 2018. https://www.gov.uk/government/publications/adult-education-budget-funding-rates-and-formula-2018-to-2019.

Education and Training Foundation, and Frontier Economics. 'Further Education Workforce Data for England. Analysis of the 2016-2017 Staff Individualised Record (SIR) Data', 2018. https://www.et-foundation.co.uk/wp-content/uploads/2018/03/Staff-Individualised-Records-Data-Report-SIR-25-2016-17.pdf.

HM Government. ‘Industrial Strategy: Building a Britain Fit for the Future’. GOV.UK, 2017. https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future.
HM Treasury. ‘Autumn Statement 2013’, 2013. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/263942/35062_Autumn_Statement_2013.pdf.
———. ‘Spending Review 2010’, 2010. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203826/Spending_review_2010.pdf.
———. ‘Spending Review and Autumn Statement 2015’, 2015. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/479749/52229_Blue_Book_PU1865_Web_Accessible.pdf.
Hutchinson, Jo, John Dunford, and Mike Treadaway. ‘Disadvantage Gap, Accountability and the Pupil Premium’, 2016. https://epi.org.uk/publications-and-research/divergent-pathways-disadvantage-gap-accountability-pupil-premium/.
Leaning and Skills Improvement Service. ‘Further Education College Workforce Data For England. An Analysis of the Staff Individualised Record (SIR) 2010-11’, 2012.
Mucklow, Peter. ‘Education Funding Agency Letter to Post-16 Institutions about Funding for the Academic Year 2014 to 2015’, 12 October 2013. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/264707/Peter_Mucklow_Letter_to_sector_December_13.pdf.
———. *Education Funding Agency Letter to Post-16 Institutions about Funding for the Academic Year 2017 to 2018*, 2016. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/580182/Education__Funding_Agency_letter_to_post_16_institutions__about_funding_for_the_academic_year_2017_to_2018.pdf.
National Audit Office. ‘Converting Maintained Schools to Academies’. National Audit Office, 22 February 2018. https://www.nao.org.uk/press-release/converting-maintained-schools-to-academies/.
———. ‘Financial Sustainability of Schools’, 2016. https://www.nao.org.uk/wp-content/uploads/2016/12/Financial-sustainability-of-schools.pdf.
———. ‘Overseeing Financial Sustainability in the Further Education Sector’, 2015. https://www.nao.org.uk/wp-content/uploads/2015/07/Overseeing-financial-sustainability-in-the-further-education-sector.pdf.
Office for National Statistics. ‘Gross Domestic Product: Year on Year Growth’, 2019. https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ihyp/pn2.
———. ‘UK Government Debt and Deficit: September 2018’, 2018. https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicspending/bulletins/ukgovernmentdebtanddeficitforeurostatmaast/september2018.
Ofqual. ‘AS and A Level Decoupling: Implications for the Maintenance of AS Standards’, 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/722590/7_-_AS_Decoupling_Report_-_PROOFED.pdf.
Ofsted. ‘Education Inspection Framework 2019: Inspecting the Substance of Education’. GOV.UK, 2019. https://www.gov.uk/government/consultations/education-inspection-framework-2019-inspecting-the-substance-of-education.
———. ‘The Common Inspection Framework: Education, Skills and Early Years’, 2015. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717953/The_common_inspection_framework_education_skills_and_early_years-v2.pdf.

Russell Group. 'Informed Choices. A Russell Group Guide to Making Decisions about Post-16 Education', 2018. https://www.russellgroup.ac.uk/media/5686/informed-choices-2018-1-6th-edition-final.pdf.
'Statistics: School Workforce'. GOV.UK. Accessed 25 April 2019. https://www.gov.uk/government/collections/statistics-school-workforce.
Vidal Rodeiro, Carmen, and Joanna Williamson. 'Meaningful Destinations: Using National Data to Investigate How Different Education Pathways Support Young People's Progression in England'. *Research Papers in Education*, 2018, 1–24. https://doi.org/10.1080/02671522.2018.1536889.
Wolf, Alison. 'Review of Vocational Education - The Wolf Report', 2011. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/180504/DFE-00031-2011.pdf.
Young People's Learning Agency. '16-19 Funding Statement', 2010. https://dera.ioe.ac.uk/2206/1/16-19_Funding_Statement.pdf.
———. 'Funding Guidance 2010/11: Additional Learning Support', 2010. https://dera.ioe.ac.uk/2203/1/YPLA-ALS-FG2010-11-Version_1b.pdf.

[1] Chris Belfield, Christine Farquharson, and Luke Sibieta, '2018 Annual Report on Education Spending in England' (The IFS, 17 September 2018), https://doi.org/10.1920/re.ifs.2018.0150.
[2] National Audit Office, 'Converting Maintained Schools to Academies', National Audit Office, 22 February 2018, https://www.nao.org.uk/press-release/converting-maintained-schools-to-academies/.
[3] Department for Education, 'Raising the Participation Age', GOV.UK, 2012, https://www.gov.uk/government/collections/raising-the-participation-age.
[4] Department for Education, 'Funding for the Delivery of T Levels', GOV.UK, accessed 7 March 2019, https://www.gov.uk/government/consultations/funding-for-the-delivery-of-t-levels.
[5] Department for Education, 'Review of Post-18 Education and Funding. Terms of Reference', 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/682348/Post_18_review_-_ToR.pdf.
[6] Department for Education, 'Review of Post-16 Qualifications at Level 3 and below in England', 2019, 16, https://consult.education.gov.uk/post-16-qualifications-review-team/post-16-level-3-and-below-qualifications-review/.
[7] HM Government, 'Industrial Strategy: Building a Britain Fit for the Future', GOV.UK, 2017, https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future.
[8] Office for National Statistics, 'Gross Domestic Product: Year on Year Growth', 2019, https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ihyp/pn2.
[9] Office for National Statistics, 'UK Government Debt and Deficit: September 2018', 2018, https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicspending/bulletins/ukgovernmentdebtanddeficitforeurostatmaast/september2018.
[10] Young People's Learning Agency, 'Funding Guidance 2010/11: Additional Learning Support', 2010, https://dera.ioe.ac.uk/2203/1/YPLA-ALS-FG2010-11-Version_1b.pdf.
[11] Department for Education, '16-19 Funding Formula Review. Funding Full Participation and Study Programmes for Young People', 2012, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/180961/EFA-00073-2012__16-19_funding_policy_document.pdf.
[12] Young People's Learning Agency, '16-19 Funding Statement', 2010, https://dera.ioe.ac.uk/2206/1/16-19_Funding_Statement.pdf.
[13] Young People's Learning Agency.
[14]HM Treasury, 'Spending Review 2010', 2010, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203826/Spending_review_2010.pdf.

[15] Jack Britton and Lorraine Dearden, 'The 16 to 19 Bursary Fund: Impact Evaluation', 2015.
[16] Lorraine Dearden et al., 'Conditional Cash Transfers and School Dropout Rates', *Journal of Human Resources* 44, no. 4 (2 October 2009): 827–57, https://doi.org/10.3368/jhr.44.4.827.
[17]Alison Wolf, 'Review of Vocational Education - The Wolf Report', 2011, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/180504/DFE-00031-2011.pdf.
[18]Peter Mucklow, 'Education Funding Agency Letter to Post-16 Institutions about Funding for the Academic Year 2014 to 2015', 12 October 2013, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/264707/Peter_Mucklow_Letter_to_sector_December_13.pdf.
[19]Department for Education, '16-19 Funding Formula Review. Funding Full Participation and Study Programmes for Young People'.
[20]HM Treasury, 'Autumn Statement 2013', 2013, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/263942/35062_Autumn_Statement_2013.pdf.
[21]HM Treasury, 'Spending Review and Autumn Statement 2015', 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/479749/52229_Blue_Book_PU1865_Web_Accessible.pdf.
[22]Peter Mucklow, *Education Funding Agency Letter to Post-16 Institutions about Funding for the Academic Year 2017 to 2018*, 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/580182/Education__Funding_Agency_letter_to_post_16_institutions__about_funding_for_the_academic_year_2017_to_2018.pdf.
[23] Belfield, Farquharson, and Sibieta, '2018 Annual Report on Education Spending in England'.
[24] For the *16-19 institution allocations + support + apprenticeships*, data for 2017/18 is not available as final number of learners is not known. For this category, apprenticeship learners were added to the number of students in classroom-based education, meaning the denominator is different for this category.
[25] The IFS' 8 per cent figure includes school pending on primary, secondary, and 16-19 provision, and local authority spending.
[26] Student support broken down by institution type before 2012/13 is not available.
[27] Belfield, Farquharson, and Sibieta, '2018 Annual Report on Education Spending in England'.
[28] Department for Education, 'Raising the Participation Age'.
[29] Jo Hutchinson, John Dunford, and Mike Treadaway, 'Disadvantage Gap, Accountability and the Pupil Premium', 2016, https://epi.org.uk/publications-and-research/divergent-pathways-disadvantage-gap-accountability-pupil-premium/.
[30] Department for Education, 'Revised A Level and Other 16-18 Results in England, 2017/2018', 2019.
[31] Department for Education, 'Academies Spend Data - Notes', accessed 6 March 2019, https://webarchive.nationalarchives.gov.uk/20130404125700oe_/http://www.education.gov.uk/schools/performance.
[32] National Audit Office, 'Converting Maintained Schools to Academies'.
[33] Jon Andrews and Tom Lawrence, 'School Funding Pressures in England' (Education Policy Institute, 2018), https://epi.org.uk/wp-content/uploads/2018/03/School-funding-pressures_EPI.pdf; Jon Andrews, 'School Revenue Balances in England' (Education Policy Institute, 2019), https://epi.org.uk/wp-content/uploads/2019/01/School-Revenue-Balances-in-England_EPI.pdf.
[34] Education and Skills Funding Agency, 'Adult Education Budget: Funding Rates and Formula 2018 to 2019', GOV.UK, 2018, https://www.gov.uk/government/publications/adult-education-budget-funding-rates-and-formula-2018-to-2019.
[35] Ofqual, 'AS and A Level Decoupling: Implications for the Maintenance of AS Standards', 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/722590/7_-_AS_Decoupling_Report_-_PROOFED.pdf.
[36] Russell Group, 'Informed Choices. A Russell Group Guide to Making Decisions about Post-16 Education', 2018, https://www.russellgroup.ac.uk/media/5686/informed-choices-2018-1-6th-edition-final.pdf.
[37] Facilitating subjects do not always match with how subjects are reported in the chart, but the comparison provided matches closest subject groups.
[38] Carmen Vidal Rodeiro and Joanna Williamson, 'Meaningful Destinations: Using National Data to Investigate How Different Education Pathways Support Young People's Progression in England', *Research Papers in Education*, 2018, 1–24, https://doi.org/10.1080/02671522.2018.1536889.

[39] Hasan Bakhshi et al., *The Future of Skills: Employment in 2030* (United Kingdom: Pearson, 2017).
[40] CBI, 'Educating for the Modern World. CBI/Pearson Education and Skills Annual Report', 2018, http://www.cbi.org.uk/index.cfm/_api/render/file/?method=inline&fileID=12087B3C-FD5F-497B-908E5285EA942928.
[41] National Audit Office, 'Overseeing Financial Sustainability in the Further Education Sector', 2015, https://www.nao.org.uk/wp-content/uploads/2015/07/Overseeing-financial-sustainability-in-the-further-education-sector.pdf; National Audit Office, 'Financial Sustainability of Schools', 2016, https://www.nao.org.uk/wp-content/uploads/2016/12/Financial-sustainability-of-schools.pdf; Association of Colleges, 'AoC 2018 Report on College Finances', 2018, https://www.aoc.co.uk/sites/default/files/AoC%20report%20on%20college%20finances%202018%2014.9.18.pdf.
[42] Education and Training Foundation and Frontier Economics, 'Further Education Workforce Data for England. Analysis of the 2016-2017 Staff Individualised Record (SIR) Data', 2018, https://www.et-foundation.co.uk/wp-content/uploads/2018/03/Staff-Individualised-Records-Data-Report-SIR-25-2016-17.pdf.
[43] Leaning and Skills Improvement Service, 'Further Education College Workforce Data For England. An Analysis of the Staff Individualised Record (SIR) 2010-11', 2012.
[44] Belfield, Farquharson, and Sibieta, '2018 Annual Report on Education Spending in England'.
[45] Department for Education, 'School Workforce in England: November 2017', 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719772/SWFC_MainText.pdf.
[46] 'Statistics: School Workforce', GOV.UK, accessed 25 April 2019, https://www.gov.uk/government/collections/statistics-school-workforce.
[47] Ofsted, 'Education Inspection Framework 2019: Inspecting the Substance of Education', GOV.UK, 2019, https://www.gov.uk/government/consultations/education-inspection-framework-2019-inspecting-the-substance-of-education.
[48]Ofsted, 'The Common Inspection Framework: Education, Skills and Early Years', 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717953/The_common_inspection_framework_education_skills_and_early_years-v2.pdf.