

The Outlook for Higher Education Spending by the Department for Business, Innovation and Skills

IFS Report R86

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Preface

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Executive Summary

The current decade is one of significant fiscal austerity for government spending. The coalition government that came to power in 2010 has embarked on a path of fiscal consolidation that is now expected to last at least seven years (up to 2017–18), with tax increases and spending cuts that are together forecast to bring government borrowing back down to sustainable levels. It is not yet clear how some of these cuts to public spending are to be allocated, however, either between departments (beyond 2015–16) or within departments (beyond 2014–15). In this report, funded by Universities UK, we attempt to assess the outlook for government non-investment spending on higher education through to 2017–18.

To do this, we first project how total government non-investment spending will evolve through to 2017–18 in the absence of further policy change and then illustrate how this might be allocated between departments, focusing on what the outlook for the Department for Business, Innovation and Skills (BIS) might be. We then investigate the feasibility of different scenarios for spending on higher education by illustrating the implications that such spending would have for other areas of BIS spending.

Departmental spending under the coalition government

- The Treasury sets spending limits (commonly referred to as ‘DEL’) for government departments. Resource DEL (non-investment spending by departments on administration and the delivery of public services) was cut by 6.2% in real terms between 2010–11 and 2012–13. Further cuts have also been allocated between departments up to 2015–16, such that by 2015–16 departmental resource spending is forecast to be 10.8% lower than it was in 2010–11.
- BIS is largely responsible for spending on further and higher education, science and research. It saw its resource DEL budget cut by 12.5% between 2010–11 and 2012–13, and is expected to see a 25.3% cut by 2014–15. The 2013 Spending Round announced a further 7.3% real cut for 2015–16, bringing the total real cut between 2010–11 and 2015–16 to 30.7%.
- The largest component of BIS resource spending in 2010–11 was spending on higher education, which accounted for 39% of the total. This includes the teaching grants made by the Higher Education Funding Council for England (HEFCE) to English higher education institutions (which accounted for 75% of higher education resource spending and 29% of total BIS resource spending) and maintenance grants to English students from low-income

families made by the Student Loans Company (which accounted for 19% of higher education resource spending and 7% of total BIS resource spending).¹

- Non-investment spending by BIS on higher education is planned to fall by almost 50% between 2010–11 and 2014–15, largely as a result of a major reform to the way in which higher education is financed. This reform was introduced in September 2012 and has shifted the burden of financing higher education teaching towards students and away from central government. More specifically, the cap on tuition fees has been substantially increased, while the per-student element of the teaching grant has been cut dramatically. Excluding the higher education teaching grant, the forecast real cut to BIS resource DEL between 2010–11 and 2014–15 is 9.6% rather than 25.3%.

The outlook for total spending beyond 2015–16

- The government's current forecast horizon runs to 2017–18, but the final two years (2016–17 and 2017–18) fall in the next parliament, meaning that decisions regarding the level and allocation of DEL spending across departments in those years will be made by the next government.
- However, taking the government's plans for total non-investment spending, together with forecasts from the Office for Budget Responsibility for non-departmental spending, as given suggests that, in the absence of new policy action, total resource DEL will be cut by an additional 8.1% in real terms between 2015–16 and 2017–18.
- The next government may, however, decide on a different level of departmental spending. Greater levels of departmental spending could be achieved by reducing non-departmental spending (for example, by announcing further cuts to benefit spending) and/or by increasing the level of total public spending, financed by tax increases and/or higher borrowing.

Possible budget allocations for BIS beyond 2015–16

- It is not yet known what the resource budget for BIS will be in the years beyond 2015–16. However, given that the government is planning to continue cutting total resource DEL in 2016–17 and 2017–18, further cuts are almost certainly on the cards.
- We illustrate a range of possible outcomes for BIS by looking at five different scenarios for the allocation of total resource DEL between departments:

¹ The estimated long-run cost to the government of student loans is not included in the measure of BIS spending we consider. It is a 'non-cash' cost, since it does not reflect actual flows of money at that point in time, and is therefore not substitutable with other parts of the BIS resource budget.

- assuming that all departments see the same percentage real cut to their budgets as each other in 2016–17 and 2017–18;
 - assuming that spending on aid and the NHS is protected and that all other departments see the same percentage real cut to their budgets as each other in 2016–17 and 2017–18;
 - assuming that spending on aid, schools and the NHS is protected and that all other departments see the same percentage real cut to their budgets as each other in 2016–17 and 2017–18;
 - assuming that spending on aid, schools and the NHS is protected and that the budget cuts faced by other departments are allocated in proportion to the cuts they are each planned to deliver between 2010–11 and 2014–15;
 - assuming that spending on aid, schools and the NHS is protected and that the budget cuts faced by other departments are allocated in proportion to the cuts they are each planned to deliver between 2010–11 and 2014–15, where the planned cut to BIS resource DEL between 2010–11 and 2014–15 is calculated excluding the cut to the higher education teaching grant.
- These scenarios result in a wide range of outcomes for the BIS budget, with cuts to resource DEL ranging from 7.9% over the two years (under the first scenario listed above) to 24.7% (under the fourth scenario). These equate to real cuts to non-investment BIS spending of between £1.0 billion and £3.1 billion (2013–14 prices) between 2015–16 and 2017–18.

The outlook for non-investment spending on higher education

- The magnitude of the cuts that are likely to be required, even under the most optimistic scenario described above, means that BIS will be required to make further difficult decisions about where to allocate its increasingly scarce budget beyond 2014–15 (the last year for which plans have currently been made).
- We estimate that even if student enrolment numbers were held constant from academic year 2014–15 onwards, and the generosity of teaching grants and the level of student maintenance grants were held constant in nominal terms, then spending on higher education would still fall by 24.1% between 2014–15 and 2017–18. This arises because spending on the higher education teaching grant is falling over this period as students enrolled under the old funding regime (pre-2012) are gradually replaced by those who enrolled under the new funding regime (who attract lower or no teaching grant).
- Under the five scenarios for total BIS resource DEL described above, this would imply a cut to non-higher-education spending by BIS of between 11.1% and 32.5%. If the government also wanted to protect spending on science and research, as it has done over the last few years, then other areas of BIS resource spending (primarily further education) would be facing cuts of between 17.4% and 60.7% over the three years.

- Such large cuts to a particular area of spending would be challenging to achieve without significantly changing what public services are delivered. This might suggest that cuts to science and research or even higher education spending might be required in order to ease the pain in other areas of BIS spending.
- One way the government could reduce spending on higher education is through reducing student numbers. A reduction in enrolment numbers of 3% per year from academic year 2014–15 onwards would increase the cut to higher education spending between 2014–15 and 2017–18 to 29.2%. This would reduce the cut required to non-higher-education BIS spending under our scenarios to between 9.2% and 30.6%. However, reductions in student numbers are likely to impact negatively on the government's ambitions to widen participation, because, as of 2013–14, the student number limit only covers those who do not achieve grades equivalent to ABB at A level and students from disadvantaged backgrounds are less likely to achieve these grades.
- Alternatively, the government could cut the generosity of teaching grants. Abolishing the core element of the teaching grant, which currently provides additional per-student funding for students on high-cost and lab-based courses (such as medicine), would increase the cut to higher education spending to 44.3%. This would reduce the cut required to non-higher-education BIS spending under our scenarios to between 3.6% and 25.0%. However, this might not reduce overall government spending in the long run if tuition fees (and their associated student loans) are increased in order to maintain university resources per student. It might also conceivably reduce demand for such subjects, which might in turn have implications for the skill base of the economy in future.
- A final option for the government to reduce spending on higher education would be to reduce the generosity of maintenance grants. Reducing the upper parental income threshold for student maintenance grant eligibility from £42,600 to £35,000 p.a. would reduce higher education spending by the same amount as reducing the annual intake of students by 2.2% a year from 2014–15 onwards. Such a change would be politically difficult in light of concerns about the accessibility of higher education for those from disadvantaged backgrounds. However, if accompanied by an increase in maintenance loans and better communication with prospective students, tightening maintenance grants may be preferable to reducing student number limits, if the policy priority is to widen participation in higher education.
- On the other hand, the government may want to increase student numbers in an attempt to increase productive capacity and promote economic growth. For example, increasing student enrolment by 3% per year from academic year 2014–15 onwards would allow an extra 97,000 full-time undergraduates to have enrolled in university by academic year 2017–18. This would, however, require greater spending reductions elsewhere: non-

higher-education spending by BIS would need to be cut by between 13.1% and 34.5% under the five scenarios for total BIS resource DEL considered, compared with between 11.1% and 32.5% when student numbers are held constant.

- It is also possible that the government will choose to raise taxes, increase borrowing and/or reduce non-departmental spending in order to increase total departmental spending. If total resource DEL were increased by £11 billion (in today's terms), then BIS resource DEL would face cuts of between 11.0% and 18.6% under our five scenarios for allocating spending between departments. Assuming constant student numbers and grant generosity, this would imply cuts to non-higher-education spending by BIS of between 6.2% and 16.6%. However, funding an £11 billion increase in total spending through tax increases, for example, would require policy action of the order of around a 2 percentage point increase in the standard rate of VAT.

What is clear from the analysis in this report is that there will be no easy choices: substantial cuts to departmental spending – even in areas of previous policy priority such as science or education – may be needed in order to deliver the level of fiscal consolidation required under the government's current plans.

1. Introduction

The current decade is one of significant fiscal austerity for government spending. The large increase in spending enjoyed by most Whitehall departments over the 2000s came to an abrupt end with the financial crisis and subsequent recession, and the revelation that the level of public spending was unsustainable given the future size of the economy and the proportion of income the government collects from taxation. The coalition government that came to power in 2010 has embarked on a path of fiscal consolidation that is now expected to last seven years (up to 2017–18), with tax increases and spending cuts that are together forecast to bring government borrowing back down to sustainable levels.

It is not yet clear how some of these cuts to public spending are to be allocated, either between departments (beyond 2015–16) or within departments (beyond 2014–15). Balanced against the need for fiscal austerity is the government's desire to promote economic growth. In developed economies, such as the UK, particular attention is often given to productivity increases that can arise from investment in human capital, especially higher education. Whether any of the required cuts will need to come from higher education spending, or perhaps whether there is actually scope to increase spending on higher education despite this need for overall cuts, is an area of much debate.

This report is the first of two IFS reports funded by Universities UK (UUK) on this topic. In this first report, we attempt to assess the outlook for *non-investment* spending (also referred to as *current* or *resource* spending) on higher education through to 2017–18. To do this, we first project how total spending will evolve through to 2017–18 in the absence of further policy change and then illustrate how this might be allocated between departments, focusing on what the outlook for the Department for Business, Innovation and Skills (BIS) might be. We can then investigate the feasibility of freezes or even increases in spending on higher education by illustrating the implications for other areas of BIS spending of different scenarios for non-investment spending on higher education.

Our focus on BIS non-investment spending means that we are mainly considering the outlook for spending on teaching grants to higher education institutions and maintenance grants to students from low-income families to help meet their living expenses, and ignoring the income that institutions receive from students in the form of tuition fees (which also affects overall government spending on higher education, because the government offers loans to students to help cover tuition fee and living expenses, but not via the measure of BIS non-investment spending that we use). Our second report (due to be published in early 2014) will consider how changes to tuition fees and the accompanying student support system would affect government spending on higher education via these other routes, as well as their distributional implications. We are also ignoring spending on higher education by other government departments – such as the Department for Education (which provides some funding for, and grants and bursaries to some students undertaking, teacher training) and the Department of Health

(which provides bursaries to students on pre-registration health professional training courses) – and private sources of income for universities, such as the fees paid by overseas students and the revenues from residences and catering operations.

The structure of this report is as follows. Chapter 2 discusses how total non-investment (resource) spending by departments and total BIS resource spending have changed since 2010–11, and how different components of BIS spending – in particular, higher education – have fared over that period. Chapter 3 considers how departmental spending may evolve through to 2017–18 both in the absence of any new government policies and under an alternative scenario in which spending is increased. Chapter 4 analyses the implications for BIS of different scenarios for how this spending could be allocated between departments. Chapter 5 then illustrates what the outlook for spending on higher education might be, given the implications any spending allocation would have for other areas of BIS spending. Chapter 6 concludes.

2. Departmental Spending under the Coalition Government

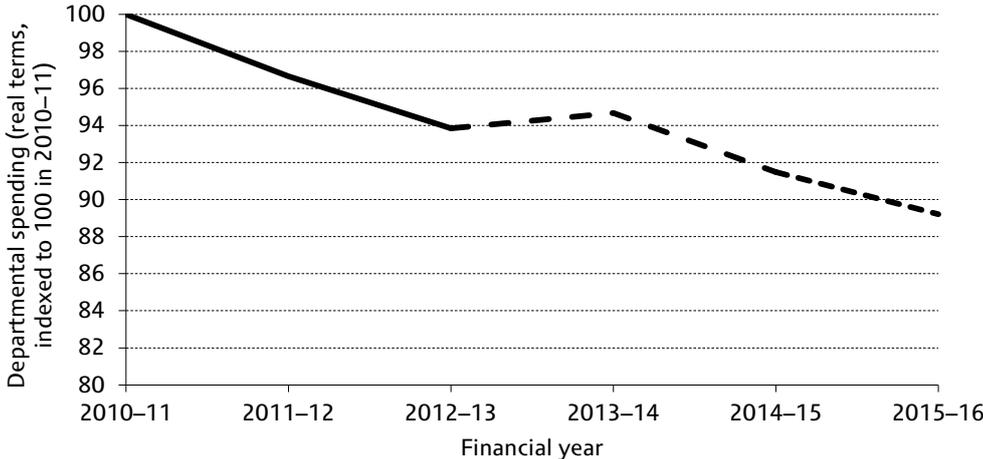
2.1 Total departmental spending

For planning purposes, HM Treasury divides total public spending into two components – departmental expenditure limits (DELs) and annually managed expenditure (AME). Each department has an annual DEL budget to spend on administration and the delivery of public services. These DELs are set in Spending Reviews, generally some years in advance, and are intended to be firm and fixed limits on what departments are able to spend. AME, by contrast, includes areas of spending that have typically been argued to be less easy to control and plan, such as social security spending, debt interest payments and spending on the public sector pensions of retired public sector workers.

DEL and AME are also subdivided into capital spending (i.e. spending that adds to the public sector’s stock of fixed assets) and resource spending (essentially spending on other items). The Treasury sets departments’ resource (RDEL) and capital (CDEL) budgets separately, and while a department can boost capital spending by reducing resource spending, it cannot increase RDEL at the cost of CDEL.

In this report, we focus on RDEL ‘excluding depreciation’. This is non-investment spending by government departments on the administration and delivery of

Figure 2.1. Resource DEL since 2010–11



Note: The solid line indicates out-turns, the large-dashed line indicates plans for the period covered by the 2010 Spending Review and the smaller-dashed line indicates plans announced in the 2013 Spending Round. Resource DEL excludes depreciation. Figures are adjusted to compensate for the business rates retention policy from 2013–14 and financial transactions in 2013–14 to 2015–16 in order to present a more consistent time series. Figures are in real terms, adjusted for inflation using the GDP deflator.

Source: Authors’ calculations based on HM Treasury (2013a, 2013b and 2013c).

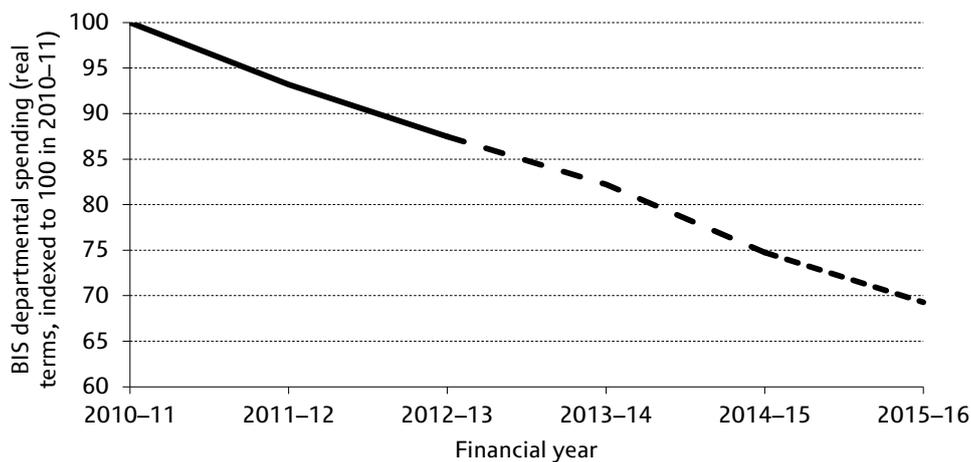
public services, excluding ‘non-cash’ costs. In the case of BIS, this means that we are ignoring the outlay on student loans, which are a capital transaction, and the estimate of the long-run cost to government of granting student loans, which is a non-cash cost. We can abstract from both capital spending and non-cash costs since the budgets for neither of these can be used to supplement RDEL excluding depreciation.

Between 2010–11 and 2012–13, total resource DEL (excluding depreciation) was cut by 6.2% after adjusting for inflation (i.e. in real terms). Further cuts have also been allocated between departments up to 2015–16, such that by 2015–16 departmental resource spending is forecast to be 10.8% lower than it was in 2010–11. The profile of these cuts is shown in Figure 2.1.

2.2 The Department for Business, Innovation and Skills

The change in the BIS budget since 2010–11 is described in Figure 2.2, with the out-turns to date illustrated by the solid line and the plans through to 2015–16 illustrated by dashed lines. As with most government departments, the current plans imply that BIS will see a significant reduction in its resource budget over the period. BIS RDEL spending was 12.5% lower in real terms in 2012–13 than it was in 2010–11, and is planned to fall to just 74.7% of its 2010–11 level by 2014–15. The 2013 Spending Round set the BIS resource budget for 2015–16: RDEL is to be cut by a further 7.3% in real terms, bringing the total cut since 2010–11 to 30.7%.

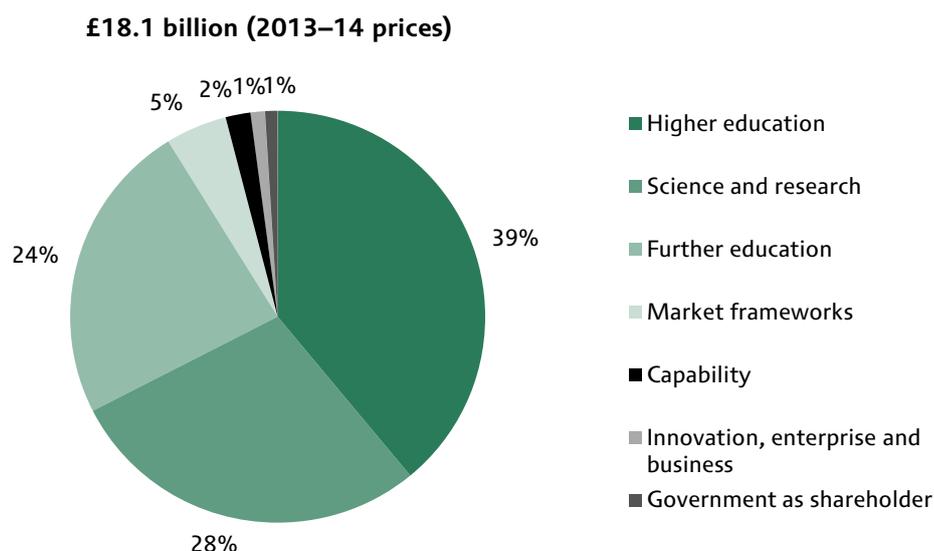
Figure 2.2. BIS resource DEL since 2010–11



Note: The solid line indicates out-turns, the large-dashed line indicates plans for the period covered by the 2010 Spending Review and the smaller-dashed line indicates plans announced in the 2013 Spending Round. Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans). Figures are adjusted to remove £300 million of financial transactions in 2015–16 to present a more consistent time series. Figures are in real terms, adjusted for inflation using the GDP deflator.

Source: Authors’ calculations based on HM Treasury (2013a, 2013b and 2013c).

Figure 2.3. Composition of BIS resource DEL in 2010–11



Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans). ‘Science and research’ includes the activities of the seven research councils, research activities of the Higher Education Funding Council for England, the UK Space Agency and the UK Atomic Energy Authority. ‘Innovation, enterprise and business’ includes the Technology Strategy Board and BIS’s launch investments and financial guarantees. ‘Market frameworks’ includes the activities of the Insolvency Service, the Competition Commission, and the Advisory, Conciliation and Arbitration Service. ‘Higher education’ includes the teaching and learning grants of HEFCE and the student support system of grants (including the activities of the Student Loans Company). ‘Further education’ includes the Skills Funding Agency and the UK Commission for Employment and Skills. ‘Capability’ includes BIS administrative spending and some other areas of central spending. Figures are in 2013–14 prices, adjusted for inflation using the GDP deflator. Source: Department for Business, Innovation and Skills, 2013; HM Treasury, 2013c.

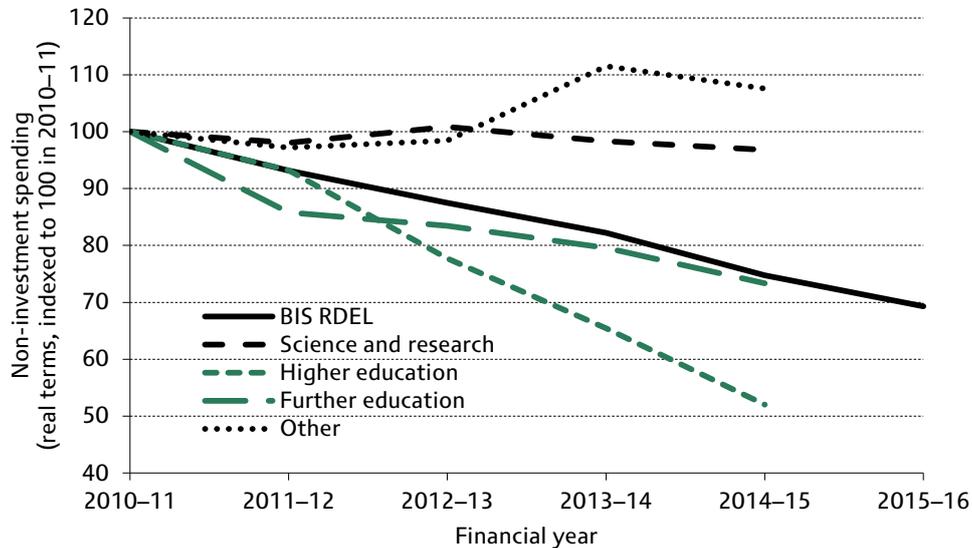
The composition of BIS resource spending in 2010–11 is described in Figure 2.3. The largest component of BIS spending in 2010–11 was spending on higher education, which accounted for 39% of total resource spending. This includes the teaching grants made by the Higher Education Funding Council for England (HEFCE) to English higher education institutions (which accounted for 75% of higher education resource spending and 29% of total BIS resource spending) and maintenance grants to English students from low-income families made by the Student Loans Company (which accounted for 19% of higher education resource spending and 7% of total BIS resource spending).

The second-largest component of BIS non-investment spending was spending on science and research, which accounted for 28% of the total in 2010–11. This includes the activities of the seven research councils and the research activities of HEFCE. Spending on further education was also significant, accounting for 24% of BIS’s resource budget.

The change in BIS resource spending since 2010–11 shown in Figure 2.2 disguises notably different trends for the different components of BIS non-investment spending over this period. Figure 2.4 shows that of the main components of BIS resource spending, science and research has fared relatively

well – with spending in 2014–15 planned to be almost the same in real terms as it was in 2010–11 – while spending on further and higher education has fallen much more markedly.

Figure 2.4. Selected components of BIS resource DEL since 2010–11



Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans). ‘Other’ includes spending on ‘market frameworks’, ‘innovation, enterprise and business’, ‘capability’ and ‘government as shareholder’, which together still comprise only a small proportion of BIS RDEL (less than 13%). Figures are in real terms, adjusted for inflation using the GDP deflator.

Source: Department for Business, Innovation and Skills, 2013; HM Treasury, 2013b and 2013c.

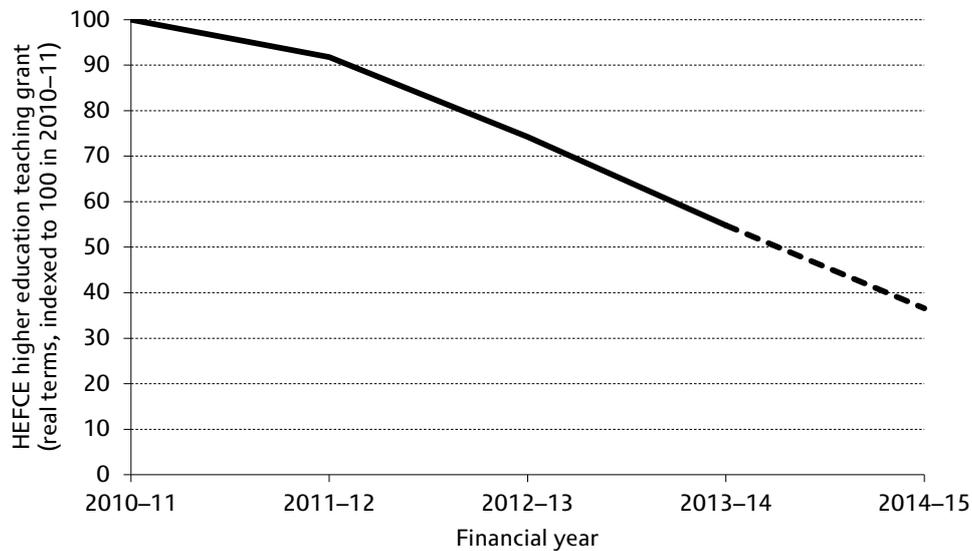
This fall of almost 50% in higher education spending between 2010–11 and 2014–15 is largely the result of a major reform to the way in which higher education is financed. Most higher education institutions in England receive the majority of their funding to deliver teaching from two sources – students, through tuition fees, and central government, through teaching grants. The split between these two sources of funding has changed dramatically over the last few years. A change in the fee regime in the academic year 2012–13 shifted the burden of financing higher education towards students and away from central government, with an increase in the fee cap from £3,375 for 2011–12 entrants to £9,000 for 2012–13 entrants introduced alongside a substantial reduction in the teaching grant, with only clinical and laboratory-based subjects attracting any per-student teaching grant under the new regime. The average increase in tuition fees was actually larger than the average reduction in HEFCE teaching grant, meaning that total funding for teaching in higher education institutions has increased despite the decline in BIS spending shown in Figure 2.4.

Figure 2.5 shows the decline in the higher education (HE) teaching grant since 2010–11; the sharp decline from financial year 2012–13 onwards is largely the result of the funding reform. From September 2012, teaching grants have been cut dramatically for ‘new-regime’ students (who are subject to higher fees), while broadly maintained in nominal terms for ‘old-regime’ students. As ‘old-regime’

The outlook for higher education spending by BIS

students leave university over the next few years, total spending on teaching grants will fall substantially even without any further policy action.

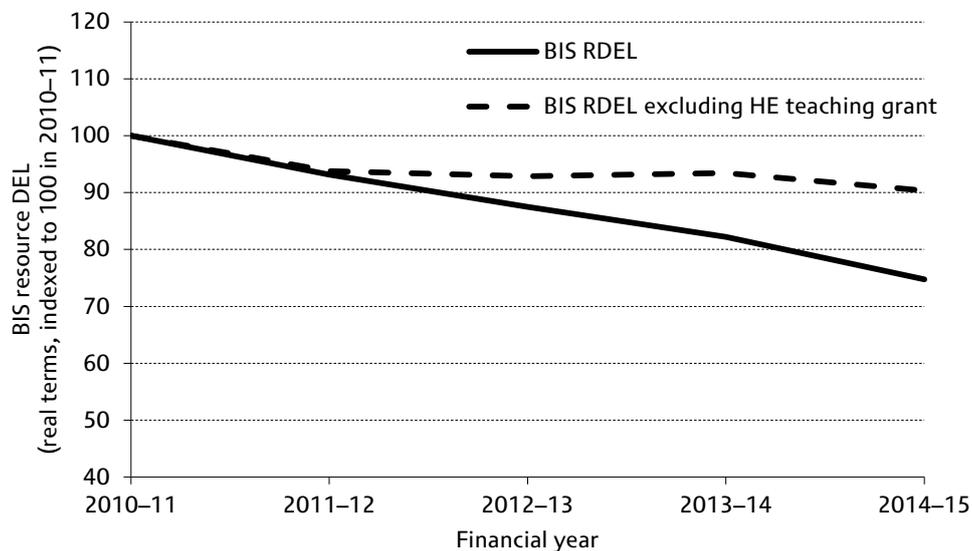
Figure 2.5. Spending on the higher education teaching grant



Note: Figure for 2014-15 is indicative. Figures are in real terms, adjusted for inflation using the GDP deflator.

Source: Annex 1 in grant letters from BIS to HEFCE in 2011, 2012 and 2013; HM Treasury, 2013c.

Figure 2.6. Change in BIS resource DEL since 2010-11: contribution of HE funding regime change



Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans). Figure for HE teaching grant in 2014-15 is indicative. Figures are in real terms, adjusted for inflation using the GDP deflator.

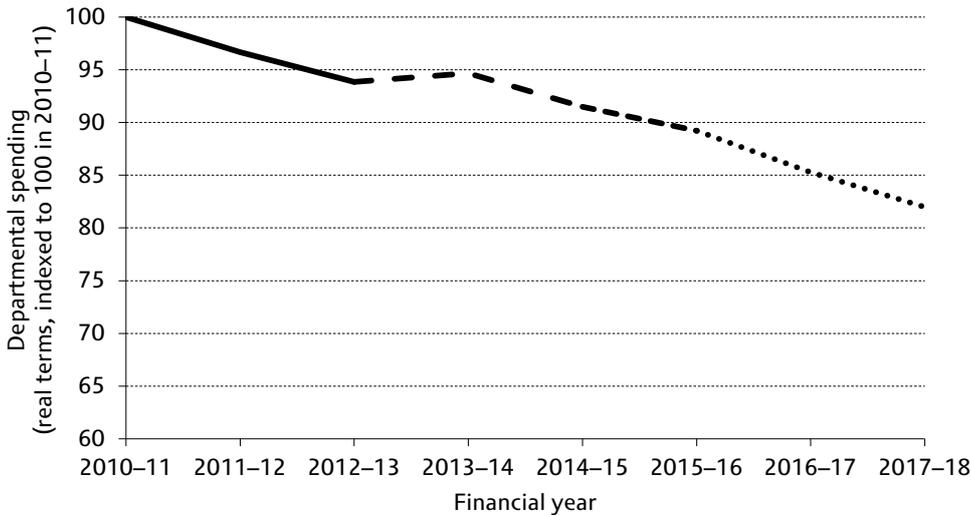
Source: Authors' calculations based on HM Treasury (2013a, 2013b and 2013c) and annex 1 in grant letters from BIS to HEFCE in 2011, 2012 and 2013.

This significant reduction in the HE teaching grant accounts for a large proportion of the reduction in total BIS resource spending described in Figure 2.2. Figure 2.6 shows that once the HE teaching grant is excluded, the forecast real cut to other BIS resource spending between 2010–11 and 2014–15 is 9.6% rather than 25.3%. This is important to bear in mind when attempting to make inferences about what the cuts delivered by BIS to date, or allocated to BIS up to 2015–16, might imply for the ability of BIS to deliver similar cuts in future since the HE teaching grant cannot be cut to the same extent again.

3. The Outlook for Total Spending beyond 2015–16

The government’s current forecast horizon runs to 2017–18, but the final two years (2016–17 and 2017–18) fall in the next parliament and so decisions regarding the level and allocation of DEL spending across departments in those years will be made by the next government. That said, the current government has set plans for total non-investment spending, while the Office for Budget Responsibility has produced forecasts for AME through to the end of the forecast horizon. We can therefore combine the Treasury’s plans for total non-investment spending with the OBR’s forecasts for AME spending to get an implied forecast for resource DEL spending in 2016–17 and 2017–18. This suggests that, on current plans, total RDEL will be cut by an additional 8.1% in real terms between 2015–16 and 2017–18. This would bring the cumulative RDEL cut since 2010–11 to 18.0%. These implied cuts beyond 2015–16 are illustrated by the dotted line in Figure 3.1.

Figure 3.1. RDEL since 2010–11, including implied plans beyond 2015–16



Note: As Figure 2.1. The dotted line is a projection implied by the government’s total spending plans.

Source: As Figure 2.1.

The next government may, however, decide on a different level of departmental spending from that implied by current plans. Greater levels of departmental spending could be achieved by reducing non-departmental spending – for example, by announcing further cuts to benefit spending – and/or by increasing the level of total public spending, financed by higher borrowing and/or higher taxation.

In the rest of this report, where we consider the likely outlook for the RDEL budget of the Department for Business, Innovation and Skills (and, within that, spending on higher education), we therefore consider two scenarios for total departmental spending beyond 2015–16:

- First, we assume that departmental spending in 2016–17 and 2017–18 turns out as implied by Budget 2013. This would involve an 8.1% real cut to RDEL over the two years.
- Second, we assume that the government decides to reduce the real cut to RDEL to 4.4% over the two years. This would mean that the average annual real cut to resource DEL over these two years would be the same as over the four years covered by the 2010 Spending Review² (at 2.2% per year).

Under this second scenario for total departmental spending, the government would be required to raise an additional £11 billion (in today's terms) from some combination of tax increases, higher borrowing and cuts to non-departmental spending. To put this in context, £11 billion is equivalent to an increase in borrowing of about 0.7% of national income, or is roughly the amount that could be raised by, for example, an increase in the standard rate of VAT by 2 percentage points.³

² 2011–12 to 2014–15.

³ Source: HMRC, *Direct Effects of Illustrative Changes*, <http://www.hmrc.gov.uk/statistics/expenditures/table1-6.pdf>.

4. Possible Budget Allocations for BIS beyond 2015–16

It is not yet known what the resource budget for BIS will be in the years beyond 2015–16. However, given that the government is planning to continue cutting total RDEL in 2016–17 and 2017–18, further cuts are almost certainly on the cards. We can therefore illustrate a range of possible outcomes for BIS by looking at some different scenarios for the allocation of total RDEL between departments.

The first scenario for allocating DEL that we consider assumes that all departments see the same percentage real cut to their budgets as each other in 2016–17 and 2017–18.⁴ This would result in BIS RDEL (and all other departments' RDELs) facing cuts of 4.0% in each of the two years. These figures are shown in the first row of Table 4.1.

Table 4.1. Possible real cuts to BIS resource DEL after 2015–16, given spending plans implied by Budget 2013 (% terms)

| Scenario for DEL allocation | | Real change in: | | Cumulative real change by 2017–18 since: | |
|-----------------------------|---|-----------------|---------|--|---------|
| | | 2016–17 | 2017–18 | 2015–16 | 2010–11 |
| 1 | Equal cuts | –4.0% | –4.0% | –7.9% | –36.2% |
| 2 | Protected NHS & aid; equal cuts elsewhere | –7.4% | –7.4% | –14.2% | –40.6% |
| 3 | Protected NHS, aid & schools; equal cuts elsewhere | –10.6% | –10.6% | –20.2% | –44.7% |
| 4a | Protected NHS, aid & schools; 'same trajectory' elsewhere | –13.2% | –13.2% | –24.7% | –47.8% |
| 4b | Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere | –5.9% | –5.5% | –11.1% | –38.4% |

Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans).

The government has not, however, allocated the cuts across departments equally in this way in either the 2010 Spending Review or the 2013 Spending Round. Spending on overseas aid has been increased to meet an international commitment to spend 0.7% of national income on aid. More importantly, the government has also pledged to protect spending on the NHS and non-investment spending on schools from real cuts between 2010–11 and 2015–16.

⁴ In all the scenarios considered, we assume that the budgets of the devolved administrations of Scotland, Wales and Northern Ireland are set according to the 'Barnett formula'. In other words, we take into account that the decision of how to allocate DEL between departments will determine the budgets of the devolved administrations, and therefore how much is available to be distributed between departments. For more detail on the Barnett formula, see House of Lords (2009).

Since together these ‘protected’ areas account for over 40% of departmental resource spending, the cuts to all other areas have, on average, been much greater than the cuts to total departmental spending.

Were the government to continue some of this ‘protection’ in 2016–17 and 2017–18 by increasing spending on the NHS in line with inflation and increasing aid spending in line with national income growth, the implied cuts to BIS RDEL would be greater than suggested in our first scenario. This is shown in the second row of Table 4.1. Instead of 4.0% a year real cut to resource DEL, BIS would be looking at cuts of 7.4% a year. If the government were also to continue increasing non-investment spending on schools in line with inflation, the cuts facing BIS’s resource budget would increase to 10.6% per year (third row).

The final scenario for allocating non-investment spending between government departments does not involve the cuts to spending outside of the NHS, aid and schools being allocated equally. Instead, we assume that the budget cuts faced by these other departments are allocated in proportion to the cuts they are each planned to deliver between 2010–11 and 2014–15. This can be interpreted as a scenario in which the relative priorities over different spending areas exhibited by the coalition government to date are continued through to 2017–18.

We consider two variants of this scenario; the implications for the BIS budget are shown in the final two rows of Table 4.1. In the first variant (scenario 4a), we assume the cut to the BIS budget in 2016–17 and 2017–18 is in proportion to the headline change in BIS RDEL between 2010–11 and 2014–15 (shown by the solid line in Figure 2.6). This would be an even worse picture for BIS DEL than the ‘protection and equal cuts’ scenario in the third row, since BIS has experienced a greater-than-average cut in its RDEL to date. BIS RDEL would face cuts of 13.2% in each of 2016–17 and 2017–18 under this variant of scenario 4.

However, as discussed in Section 2.2, the significant cut in BIS RDEL to date has largely been the result of a reduction in the higher education (HE) teaching grant arising from a change in the funding regime for higher education. This implies that a relatively higher priority has been given to other BIS spending than the headline reduction in BIS RDEL suggests. In the second variant (scenario 4b), we therefore assume that the cut to the BIS budget *excluding the teaching grant* in 2016–17 and 2017–18 is in proportion to the change in BIS RDEL *excluding the teaching grant* between 2010–11 and 2014–15 (shown by the dashed line in Figure 2.6). Under this assumption, BIS does significantly better than even under the scenarios in which non-NHS non-aid spending is cut equally, facing cuts to its resource budget of 5.9% in 2016–17 and 5.5% in 2017–18. This is because once the cut to the HE teaching grant (which largely arises from the funding regime change) is ignored, BIS resource spending to date has been cut at a much lower rate than that of most other departments, and this scenario assumes that relatively high prioritisation is continued in future.

These scenarios illustrate a wide range of outcomes for the BIS budget, with cuts to resource DEL ranging from 7.9% over the two years (if all departments are cut

equally) to 24.7% (if the government continues to freeze real spending on NHS, aid and schools, and other departments' budgets are cut in proportion to their planned budget cut between 2010–11 and 2014–15). These equate to real cuts to non-investment BIS spending of between £1.0 billion and £3.1 billion (2013–14 prices) between 2015–16 and 2017–18.⁵ By 2017–18, BIS non-investment spending could be 36.2% to 47.8% lower than it was in 2010–11.

Assuming a more generous total spending envelope

The implications for the BIS budget of the further planned austerity in 2016–17 and 2017–18 are serious, particularly if a future government also decides to protect areas of spending such as the NHS and schools. However, as discussed in Chapter 3, a future government may decide to increase total departmental spending relative to that implied by current plans by increasing borrowing, increasing taxation and/or decreasing non-departmental spending. Doing so would reduce the required cuts to departmental spending and, by implication, to BIS spending.

Table 4.2 therefore repeats the analysis of Table 4.1, but assuming that total non-investment departmental spending is £11 billion (in today's terms) higher in 2017–18 than implied by current government plans. As described in Chapter 3, such an increase would mean that the average annual real cut to non-investment DEL in 2016–17 and 2017–18 would be the same as the average annual real cut over the 2010 Spending Review period (2010–11 to 2014–15).

Table 4.2. Possible real cuts to BIS resource DEL after 2015–16, given £11 billion (in today's terms) additional non-investment departmental spending by 2017–18 (% terms)

| Scenario for DEL allocation | | Real change in: | | Cumulative real change by 2017–18 since: | |
|-----------------------------|---|-----------------|---------|--|---------|
| | | 2016–17 | 2017–18 | 2015–16 | 2010–11 |
| 1 | Equal cuts | –2.0% | –2.0% | –4.0% | –33.5% |
| 2 | Protected NHS & aid; equal cuts elsewhere | –3.6% | –3.6% | –7.0% | –35.6% |
| 3 | Protected NHS, aid & schools; equal cuts elsewhere | –5.1% | –5.1% | –9.9% | –37.6% |
| 4a | Protected NHS, aid & schools; 'same trajectory' elsewhere | –6.3% | –6.3% | –12.2% | –39.2% |
| 4b | Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere | –3.5% | –3.0% | –6.3% | –35.1% |

Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans).

⁵ Table A.1 in the appendix describes all the cuts illustrated in Table 4.1 in terms of the real £ changes.

With this greater total spending envelope, the required cuts to BIS RDEL are smaller. If shared equally, departments including BIS would be facing 2.0% a year real cuts to RDEL (as opposed to 4.0% in Table 4.1), while under our worst headline scenario for BIS, the resource budget would face cuts of 6.3% a year (compared with 13.2% a year in Table 4.1). Over the course of the two years 2016–17 and 2017–18, that would amount to cuts to the resource budget of between £0.5 billion and £1.5 billion (as opposed to between £1.0 billion and £3.1 billion).⁶ Taking the period since 2010–11 as a whole, our scenarios suggest that real cuts to the BIS resource budget could be in the range of 33.5% to 39.2% by 2017–18 (rather than between 36.2% and 47.8% as in Table 4.1).

⁶ 2013–14 prices. Table A.2 in the appendix describes all the cuts illustrated in Table 4.2 in terms of the real £ changes.

5. The Outlook for Non-Investment Spending on Higher Education

The likely cuts to resource DEL in 2016–17 and 2017–18 described in Chapter 4 will require BIS to make further difficult decisions about where to allocate its increasingly scarce resources. In this chapter, we consider what the prospects for spending on higher education might be in light of this overall financial position.⁷ Since BIS has not yet allocated its budget for 2015–16, we consider the three years 2015–16, 2016–17 and 2017–18.

5.1 A baseline outlook for HE spending

We start by estimating what spending on higher education would be if student enrolment numbers were held constant from academic year 2014–15 onwards and if the generosity of teaching grants and the level of student maintenance grants were held constant in nominal terms.⁸ This can be thought of as a ‘baseline’ level of spending on higher education, i.e. what the level of spending would be if the government made no change to student numbers or to nominal generosity. Under this scenario, spending on the teaching grant would still fall until around 2017–18, as ‘old-regime’ students (who all attract some amount of per-student teaching grant) are gradually replaced by ‘new-regime’ students (who attract no or a lower amount of per-student teaching grant). We estimate that spending on the higher education teaching grant would fall by 42.4% in real terms between 2014–15 and 2017–18 (from £1.9 billion to £1.1 billion in 2013–14 prices), which, combined with a cash freeze in spending on student grants, would imply a reduction in total spending on higher education of 24.1%.

The implications of this for other areas of BIS non-investment spending are described in Table 5.1 for our various scenarios of how resource DEL could be allocated between departments. Non-higher education spending (which is largely spending on science and research and on further education) would be facing cuts of 11.1% to 32.5% by the end of the three-year period. If science and research spending – a particular priority of the government to date – were frozen in cash

⁷ In reality, the decisions made by BIS about how to allocate its budget will have implications for the budgets of the devolved administrations, since UK-wide spending by BIS does not result in money being allocated to Scotland, Wales and Northern Ireland through the Barnett formula, while England-specific spending does. This would then have implications for the overall BIS budget (see footnote 4). However, we abstract from this effect in our analysis and assume throughout that Scotland, Wales and Northern Ireland receive increases in their budgets of respectively 79%, 78% and 79% of the cash increase in the total BIS budget (as was the case in the 2010 Spending Review), regardless of how BIS allocates its budget.

⁸ Specifically, we assume that the core teaching grant per ‘old-regime’ student, the core teaching grant per ‘new-regime’ student, other elements of teaching grants per student, and the average maintenance grant for each cohort of English-domiciled full-time undergraduates are all held constant in cash terms.

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terms between 2014–15 and 2017–18 (which would imply a real cut of 5.0%), other BIS spending would need to be cut by far more – by between 17.4% and 60.7% – in order for BIS to balance its resource budget.

Table 5.1. Implications of ‘baseline’ change in higher education spending between 2014–15 and 2017–18 for other areas of BIS non-investment spending

| Real change from 2014–15 to 2017–18 in: | Scenario for allocation of DEL between BIS and other departments:* | | | | |
|---|--|---------------|---------------|---------------|---------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| <i>of which:</i> | | | | | |
| Higher education | -24.1% | -24.1% | -24.1% | -24.1% | -24.1% |
| Non-HE | -11.1% | -19.1% | -26.7% | -32.5% | -15.2% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science & research (S&R) | -5.0% | -5.0% | -5.0% | -5.0% | -5.0% |
| Non-HE non-S&R | -17.4% | -33.6% | -48.9% | -60.7% | -25.6% |

*Scenarios: 1. Equal cuts
 2. Protected NHS & aid; equal cuts elsewhere
 3. Protected NHS, aid & schools; equal cuts elsewhere
 4a. Protected NHS, aid & schools; ‘same trajectory’ elsewhere
 4b. Protected NHS, aid & schools; ‘same trajectory (BIS excl. HE teaching grant)’ elsewhere

Note: Table A.3 in the appendix presents the figures in this table in £ million terms (2013–14 prices) and the total real percentage change between 2010–11 and 2017–18.

Such large cuts to further education and other BIS spending would be challenging to achieve without significantly changing what public services are delivered. This might suggest that cuts to science and research or even higher education spending might be required in order to ease the pain in other areas of BIS spending. There are three broad ways in which the government could reduce current spending on higher education: it could reduce the number of university places, it could reduce the value of the teaching grant, or it could reduce the generosity of student maintenance grants (either by reducing the level of the grant or by making the means test more stringent).⁹ We consider each of these policy options in turn below, although we focus primarily on the first two on the assumption that it would be politically difficult to reduce the generosity of maintenance grants in light of concerns about the accessibility of higher education for those from disadvantaged backgrounds.

Alternatively, the government may decide to ease the pain on all public services by increasing total non-investment departmental spending (through tax increases, cuts to non-departmental spending and/or higher borrowing). We

⁹ Other spending on higher education includes special grants – for example, for students with disabilities or with dependent children – the National Scholarship Programme, the Access to Learning Fund and various administration costs. Spending on them is much lower than spending on either maintenance grants or teaching grants.

consider the implications of our 'baseline' HE spending scenario for other BIS spending under an alternative spending envelope in Section 5.5.

5.2 Changing student numbers

The effect of changing student numbers on higher education spending is described in Figure 5.1; reductions in annual enrolment would enable HE spending to be cut by more than 24.1%, while increases in student enrolment would require HE spending to be cut by less than 24.1%.¹⁰ For the purposes of these calculations, we assume that the marginal student is the same as the average in terms of their household income and the institution and subject that they choose. This means that they incur the same per-student cost to BIS RDEL (excluding depreciation) as the current average in terms of teaching and maintenance grants. If marginal students were poorer or more likely to study high-cost subjects, then spending on them would be higher than the average (as they would incur more maintenance or teaching grants). In the extreme case in which all marginal students have high household income (so are not eligible for maintenance grants) and study classroom-based subjects (which do not attract per-student teaching grants), their enrolment would have no direct impact on BIS RDEL, excluding depreciation; note that this case would be extremely unlikely to occur in practice. Their participation is not costless to the government, however, as a result of the long-run cost to the government of granting student loans (which in the short run is a non-cash cost and hence scored only in RDEL *including* depreciation).

From Figure 5.1, it can be seen that, for example, reducing the student intake by 3% per year from academic year 2014–15 onwards would result in a reduction in higher education RDEL of 29.2% between tax years 2014–15 and 2017–18. The implications of this for other areas of BIS RDEL spending are described in Table 5.2. The greater cut to HE spending than in our baseline scenario would allow a slightly less dramatic cut to non-HE spending. For example, under the 'same trajectory' (4b) scenario and assuming the science and research budget is protected in cash terms, such a reduction in student numbers would mean that the cut to non-HE non-science-and-research spending would need to be 21.7% by 2017–18, instead of 25.6% under the baseline scenario.

¹⁰ What we consider here is a planned reduction to student intake, rather than unexpected under-recruitment of students. Planned changes to student numbers would affect total spending on both student grants and teaching grants for given levels of per-student grant, while unexpected changes would only affect total spending on student grants and per-student spending on teaching grants because the overall budget of teaching grants is fixed before final student numbers are known.

Figure 5.1. The implication of changes in annual enrolment for required cuts to HE RDEL

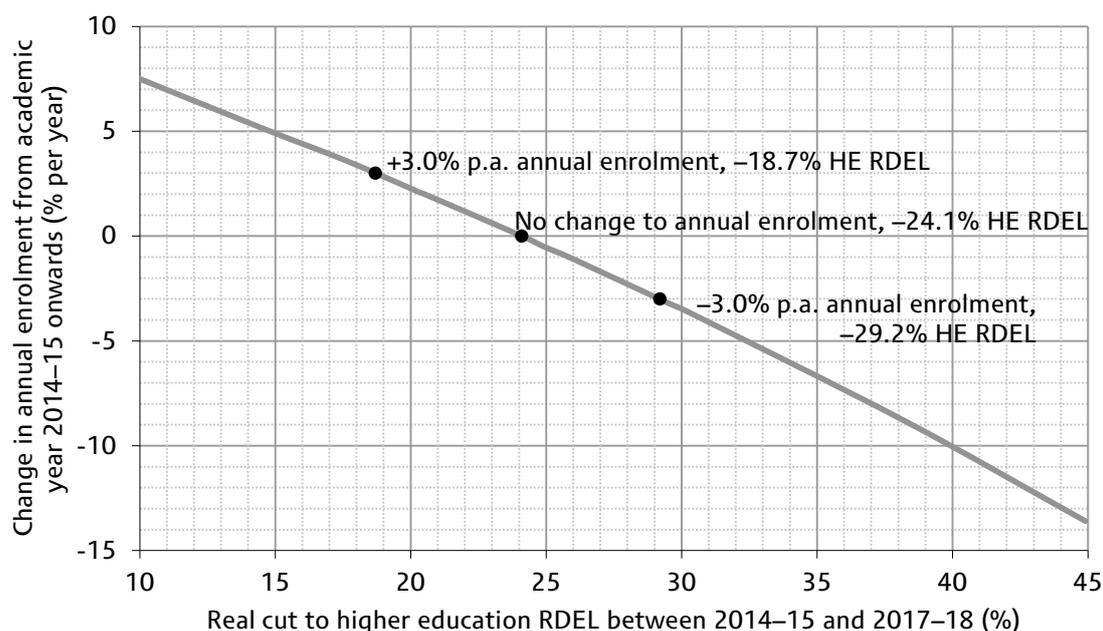


Table 5.2. Implications of decreasing student intake by 3% p.a. for higher education and other BIS spending between 2014-15 and 2017-18

| Real change from 2014-15 to 2017-18 in: | Scenario for allocation of DEL between BIS and other departments:* | | | | |
|---|--|---------------|---------------|---------------|---------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| <i>of which:</i> | | | | | |
| Higher education | -29.2% | -29.2% | -29.2% | -29.2% | -29.2% |
| Non-HE | -9.2% | -17.3% | -24.8% | -30.6% | -13.3% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science & research (S&R) | -5.0% | -5.0% | -5.0% | -5.0% | -5.0% |
| Non-HE non-S&R | -13.6% | -29.8% | -45.1% | -56.8% | -21.7% |

*Scenarios: 1. Equal cuts
 2. Protected NHS & aid; equal cuts elsewhere
 3. Protected NHS, aid & schools; equal cuts elsewhere
 4a. Protected NHS, aid & schools; 'same trajectory' elsewhere
 4b. Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere

Note: Table A.4 in the appendix presents the figures in this table in £ million terms (2013-14 prices) and the total real percentage change between 2010-11 and 2017-18.

We can also use Figure 5.1 to illustrate the implications for student numbers if the cuts to BIS RDEL were shared out equally between higher education and other areas of BIS spending, assuming that the generosity of the teaching grant and maintenance grants was unchanged. These figures are summarised in Table 5.3. For example, under the 'same trajectory' (4b) scenario, HE spending would be cut by 17.6% if all areas of BIS RDEL spending were cut at the same rate, which would actually enable an increase in student numbers of 3.6% a year from

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academic year 2014–15 onwards (amounting to an additional 47,600 places by 2017–18). On the other hand, if spending on science and research were frozen in cash terms but all other areas of BIS RDEL spending were cut equally, HE would face cuts of 24.9% over the three years, requiring a 0.5% annual reduction in enrolment numbers (a loss of 6,000 places by 2017–18).

Table 5.3. Implications for student numbers if cuts to BIS RDEL between 2014–15 and 2017–18 were shared out equally between higher education and other areas of BIS spending

| Real change from 2014–15 to 2017–18 in: | Scenario for allocation of DEL between BIS and other departments:* | | | | |
|---|--|---------------|---------------|---------------|---------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL (%) | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| <i>If all cut equally:</i> | | | | | |
| Higher education (%) | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| Higher education (£m, 2013–14 prices) | -£537m | -£752m | -£953m | -£1,109m | -£645m |
| Implied enrolment, annual % change | 5.1% | 2.0% | -1.1% | -3.6% | 3.6% |
| Implied change in 2017–18 enrolment | 69,700 | 26,000 | -13,600 | -43,300 | 47,600 |
| <i>If science and research frozen in cash terms and all else cut equally:</i> | | | | | |
| Higher education (%) | -20.3% | -29.5% | -38.2% | -44.9% | -24.9% |
| Higher education (£m, 2013–14 prices) | -£744m | -£1,083m | -£1,403m | -£1,649m | -£914m |
| Implied enrolment, annual % change | 2.1% | -3.2% | -8.8% | -13.6% | -0.5% |
| Implied change in 2017–18 enrolment | 27,600 | -38,400 | -97,000 | -139,200 | -6,000 |

*Scenarios: 1. Equal cuts

2. Protected NHS & aid; equal cuts elsewhere

3. Protected NHS, aid & schools; equal cuts elsewhere

4a. Protected NHS, aid & schools; 'same trajectory' elsewhere

4b. Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere

Another alternative to our baseline for higher education spending is that the government decides it wants to increase student enrolment in order to try to increase the productive capacity of the economy. Of course, pursuing such a policy would put additional pressure on other areas of BIS resource spending. Table 5.4 shows what would happen if the government decided to allow the student intake to increase by 3% per year from 2014–15 onwards, which would enable an extra 39,400 full-time undergraduates to enrol in university in academic year 2017–18 (and an additional 97,000 students to have enrolled since 2014–15). At a cost of £200 million (2013–14 prices) in financial year 2017–18, this does not change the cuts required to other areas of BIS RDEL by very much.

Table 5.4. Implications of increasing student intake by 3% p.a. for higher education and other BIS spending between 2014–15 and 2017–18

| Real change from 2014–15 to 2017–18 in: | Scenario for allocation of DEL between BIS and other departments:* | | | | |
|---|--|---------------|---------------|---------------|---------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| <i>of which:</i> | | | | | |
| Higher education | -18.7% | -18.7% | -18.7% | -18.7% | -18.7% |
| Non-HE | -13.1% | -21.2% | -28.7% | -34.5% | -17.2% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science & research (S&R) | -5.0% | -5.0% | -5.0% | -5.0% | -5.0% |
| Non-HE non-S&R | -21.5% | -37.7% | -53.0% | -64.7% | -29.6% |

*Scenarios: 1. Equal cuts
 2. Protected NHS & aid; equal cuts elsewhere
 3. Protected NHS, aid & schools; equal cuts elsewhere
 4a. Protected NHS, aid & schools; 'same trajectory' elsewhere
 4b. Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere

Note: Table A.5 in the appendix presents the figures in this table in £ million terms (2013–14 prices) and the total real percentage change between 2010–11 and 2017–18.

Under the 'same trajectory' (4b) scenario, with science and research protected in cash terms, non-HE non-science-and-research areas of spending would need to be cut by 29.6% (rather than 25.6% under the baseline scenario) in order for BIS to balance its budget. But of course it must be remembered that increasing student numbers would also increase the amount of student loans issued (and, potentially, the extent to which the government subsidises these loans), and would therefore increase the long-run cost to the government of funding higher education. And the cuts required to other areas of spending under the baseline scenario if we were to protect HE and science and research are already substantial.

5.3 Reducing the teaching grant

An alternative way the government could reduce spending on higher education is through cuts to the generosity of teaching grants. The top panel of Table 5.5 shows what would happen if the government were to abolish the core element of the teaching grant, which currently provides additional per-student funding for students on high-cost and lab-based courses. This would be an additional cut of £700 million (2013–14 prices) to HE spending in 2017–18, meaning that the overall cut to HE spending between 2014–15 and 2017–18 would amount to 44.3% (compared with 24.1% under our baseline scenario). As a result, only 10.3% of cuts would be required to non-HE non-science-and-research spending under the 'same trajectory' (4b) and 'frozen science and research spending' scenario, compared with the 25.6% in Table 5.1.

Table 5.5. Implications of cutting teaching grants for higher education and other BIS spending between 2014–15 and 2017–18

| Real change from 2014–15 to 2017–18 in: | Scenario for allocation of DEL between BIS and other departments:* | | | | |
|---|--|---------------|---------------|---------------|---------------|
| | 1 | 2 | 3 | 4a | 4b |
| | <i>Abolishing the core element of the teaching grant</i> | | | | |
| BIS RDEL | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| <i>of which:</i> | | | | | |
| Higher education | -44.3% | -44.3% | -44.3% | -44.3% | -44.3% |
| Non-HE | -3.6% | -11.6% | -19.2% | -25.0% | -7.7% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science & research (S&R) | -5.0% | -5.0% | -5.0% | -5.0% | -5.0% |
| Non-HE non-S&R | -2.2% | -18.4% | -33.7% | -45.5% | -10.3% |
| | <i>Abolishing the entire teaching grant</i> | | | | |
| BIS RDEL | -14.6% | -20.5% | -26.0% | -30.2% | -17.6% |
| <i>of which:</i> | | | | | |
| Higher education | -58.5% | -58.5% | -58.5% | -58.5% | -58.5% |
| Non-HE | 1.7% | -6.3% | -13.9% | -19.7% | -2.3% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science & research (S&R) | -5.0% | -5.0% | -5.0% | -5.0% | -5.0% |
| Non-HE non-S&R | 8.6% | -7.6% | -22.9% | -34.7% | 0.4% |

*Scenarios: 1. Equal cuts
 2. Protected NHS & aid; equal cuts elsewhere
 3. Protected NHS, aid & schools; equal cuts elsewhere
 4a. Protected NHS, aid & schools; 'same trajectory' elsewhere
 4b. Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere

Note: Tables A.6a and A.6b in the appendix present the figures in this table in £ million terms (2013–14 prices) and the total real percentage change between 2010–11 and 2017–18.

The bottom panel of Table 5.5 goes even further than this, showing what would happen if the government were to abolish the teaching grant entirely. This would cut £1.3 billion (2013–14 prices) from HE spending in 2017–18, and would effectively protect other areas of BIS spending under the 'same trajectory' (4b) scenario, requiring falls of at most an average 2.3% in real terms between 2014–15 and 2017–18.

Of course, entirely abolishing the teaching grant (or even 'just' its core element) is a radical policy that implies a substantial reprioritising of policy areas within BIS's remit. Moreover, reducing or abolishing the teaching grant may not be very effective in reducing overall government spending in the long run if tuition fees have to be increased in order to maintain university resources per student. It is hard to imagine no increase in fees in response to such a cut to the teaching grant, as it would have significant implications for the provision of high-cost subjects such as medicine, dentistry and veterinary studies, which could in turn have serious consequences for the future skill base of the labour force.

5.4 Reducing the generosity of student maintenance grants

A final option for the government is to reduce spending on higher education by reducing the generosity of maintenance grants. This would be politically difficult in light of concerns about the accessibility of higher education for those from disadvantaged backgrounds; on the other hand, reductions in student numbers are also likely to impact negatively on the government's ambitions to widen participation, because, as of 2013–14, the student number limit only covers those who do not achieve grades equivalent to ABB at A level and students from disadvantaged backgrounds are less likely to achieve these benchmark qualifications.¹¹

Under the current funding system, students are entitled to a maintenance grant from the government if they have low family income. For enrolments in 2014–15, students will be entitled to the full grant of £3,387 per year if their parental annual income is £25,000 or less, and a grant tapered away at around 19% if their parental annual income is above that level, with no grant available to those whose parental annual income exceeds £42,620. Perhaps the least politically difficult way to reduce spending on maintenance grants would be to make the means test more stringent by reducing that upper threshold. For example, if the upper threshold for grant eligibility were reduced from £42,620 to say £35,000, and the taper rate were increased to 34% so that all grants were withdrawn by £35,000, this would reduce spending on maintenance grants by £138 million (2013–14 prices) by 2017–18. This would cut higher education spending by the same amount as reducing the annual intake of students by 2.2% a year from academic year 2014–15 onwards. If accompanied by an increase in maintenance loans and better communication with prospective students, tightening maintenance grants may be preferable to reducing student number limits, if the policy priority is to widen HE participation.

5.5 An alternative envelope for BIS spending

The analysis in this chapter has suggested that if the government wanted to maintain or even increase student numbers within the current spending envelope, then it might have to take the difficult decision not to protect science and research spending in cash terms, or the potentially even more difficult decision not to continue protecting large spending areas such as the NHS and schools. In this latter case, the outlook for BIS spending would look more like the first column of the tables in this chapter of the report.

It is also possible that the government will choose to raise taxes, increase borrowing and/or reduce non-departmental spending in order to increase total

¹¹ Crawford (2012), for example, discusses how HE participation gaps are largely driven by the lower proportion of those from socio-economically disadvantaged backgrounds who get good A-level grades.

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departmental spending. If the total RDEL envelope were to increase by £11 billion (in today's terms), then Table 5.6 shows that BIS RDEL would fall by 13.2% under the 'same trajectory' (4b) scenario between 2014–15 and 2017–18, compared with 17.6% in Table 5.1. Under our baseline scenario for higher education spending, this would imply a 9.1% cut to non-HE spending over three years, and a 13.3% cut to non-HE non-science-and-research spending if science and research were to be protected in cash terms.

Table 5.6. Implications of 'baseline' change in higher education spending for other areas of BIS non-investment spending between 2014–15 and 2017–18, if total RDEL envelope increased by £11 billion (in today's terms)

| Real change from 2014–15 to 2017–18 in: | Scenario for allocation of DEL between BIS and other departments:* | | | | |
|---|--|---------------|---------------|---------------|---------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL | -11.0% | -13.8% | -16.5% | -18.6% | -13.2% |
| <i>of which:</i> | | | | | |
| Higher education | -24.1% | -24.1% | -24.1% | -24.1% | -24.1% |
| Non-HE | -6.2% | -10.0% | -13.7% | -16.6% | -9.1% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science & research (S&R) | -5.0% | -5.0% | -5.0% | -5.0% | -5.0% |
| Non-HE non-S&R | -7.4% | -15.0% | -22.6% | -28.4% | -13.3% |

*Scenarios: 1. Equal cuts
 2. Protected NHS & aid; equal cuts elsewhere
 3. Protected NHS, aid & schools; equal cuts elsewhere
 4a. Protected NHS, aid & schools; 'same trajectory' elsewhere
 4b. Protected NHS, aid & schools; 'same trajectory (BIS excl. HE teaching grant)' elsewhere

Note: Table A.7 in the appendix presents the figures in this table in £ million terms (2013–14 prices) and the total real percentage change between 2010–11 and 2017–18.

6. Conclusion

The coming years will be a time of continuing fiscal austerity in the UK, with non-investment spending by government departments on the administration and delivery of public services expected to fall by a further 12.6% between 2012–13 and 2017–18. This report has shown what the government's overall spending plans might imply for the Department for Business, Innovation and Skills (BIS) under a range of plausible assumptions about the allocation of resource spending across departments. We have also endeavoured to show whether it is likely that the government will be able to continue to protect or even expand spending on some of the core areas of BIS's remit, including science and research and higher education, within the current spending envelope.

If the government were to extend through to 2017–18 the overall spending priorities it pursued up to 2014–15 – i.e. if it were to protect spending on the NHS, overseas aid and schools, and require the same trajectory of cuts from all other departments as between 2010–11 and 2014–15 (where for BIS that is calculated excluding the HE teaching grant) – BIS is likely to face further cuts to its resource budget of 17.6% between 2014–15 and 2017–18, bringing the total cuts required since 2010–11 to 38.4%.

Under a baseline scenario in which student enrolment is maintained and spending on teaching and maintenance grants is held constant in cash terms, we estimate that BIS would need to cut the non-HE areas of resource spending by 15.2% between 2014–15 and 2017–18 in order to balance its budget. If BIS additionally decided to protect spending on science and research, then other areas of its budget would need to be cut by 25.6%.

If instead the government decided that it wanted to *increase* spending on higher education relative to this baseline, perhaps in an attempt to increase productivity and hence promote growth, then the cuts required elsewhere would be even larger: if science and research were protected and the number of students going to university were allowed to increase by 3% per year from 2014–15 onwards, then the cuts required to other (non-HE non-science-and-research) areas of BIS resource spending would increase to 29.6% between 2014–15 and 2017–18.

Such large cuts to this spending (which is primarily on further education) would be challenging to achieve without significantly changing the quality, quantity or type of public services delivered. This may suggest that cuts to science and research or even higher education spending might be required in order to ease the pain in other areas of BIS spending.

Even more radically, the government might have to take the difficult decision not to continue protecting large spending areas such as the NHS and schools, or to increase the total spending envelope by increasing borrowing, raising taxation and/or decreasing non-departmental spending. If total departmental spending were to be increased by £11 billion (in today's terms) – which would bring the

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average annual real cut to resource DEL in 2016–17 and 2017–18 down to that over the four years covered by the 2010 Spending Review – then, under the scenario described above, BIS would need to cut its resource budget by 13.2% between 2014–15 and 2017–18 (rather than by 17.6%). If the government additionally chose to protect spending on science and research, then under our baseline scenario for higher education spending, other areas of non-HE non-science-and-research BIS spending would need to be cut by 13.3% rather than 25.6%.

What is clear from this analysis is that there will be no easy choices: substantial cuts to departmental spending – even in areas of previous policy priority such as science or education – may be needed in order to deliver the level of fiscal consolidation required under the government’s current plans.

Appendix. Additional Tables

Table A.1. Possible real cuts to BIS resource DEL after 2015–16, given spending plans implied by Budget 2013 (£ million, 2013–14 prices)

| Scenario for DEL allocation | Real change in: | | Cumulative real change by 2017–18 since: | |
|--|-----------------|----------|--|----------|
| | 2016–17 | 2017–18 | 2015–16 | 2010–11 |
| 1 Equal cuts | –£507m | –£486m | –£993m | –£6,548m |
| 2 Protected NHS & aid; equal cuts elsewhere | –£925m | –£857m | –£1,782m | –£7,337m |
| 3 Protected NHS, aid & schools; equal cuts elsewhere | –£1,334m | –£1,192m | –£2,526m | –£8,081m |
| 4a Protected NHS, aid & schools; ‘same trajectory’ elsewhere | –£1,659m | –£1,440m | –£3,099m | –£8,654m |
| 4b Protected NHS, aid & schools; ‘same trajectory (BIS excl. HE teaching grant)’ elsewhere | –£743m | –£648m | –£1,391m | –£6,946m |

Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans).

Table A.2. Possible real cuts to BIS resource DEL after 2015–16, given £11 billion (in today’s terms) additional non-investment departmental spending by 2017–18 (£ million, 2013–14 prices)

| Scenario for DEL allocation | Real change in: | | Cumulative real change by 2017–18 since: | |
|--|-----------------|---------|--|----------|
| | 2016–17 | 2017–18 | 2015–16 | 2010–11 |
| 1 Equal cuts | –£255m | –£249m | –£504m | –£6,059m |
| 2 Protected NHS & aid; equal cuts elsewhere | –£447m | –£431m | –£878m | –£6,433m |
| 3 Protected NHS, aid & schools; equal cuts elsewhere | –£639m | –£606m | –£1,245m | –£6,800m |
| 4a Protected NHS, aid & schools; ‘same trajectory’ elsewhere | –£789m | –£739m | –£1,529m | –£7,084m |
| 4b Protected NHS, aid & schools; ‘same trajectory (BIS excl. HE teaching grant)’ elsewhere | –£433m | –£361m | –£794m | –£6,349m |

Note: Resource DEL excludes depreciation (and therefore does not include the estimated cost of student loans).

Table A.3. Implications of ‘baseline’ change in higher education spending for other areas of BIS non-investment spending

| | Scenario for allocation of DEL between BIS and other departments: | | | | |
|---|---|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL | Real £ million change, 2014–15 to 2017–18 (2013–14 prices) | | | | |
| | –£1,980m | –£2,769m | –£3,513m | –£4,086m | –£2,378m |
| <i>of which:</i> | | | | | |
| Higher education | –£883m | –£883m | –£883m | –£883m | –£883m |
| Non-HE | –£1,097m | –£1,886m | –£2,630m | –£3,203m | –£1,495m |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –£250m | –£250m | –£250m | –£250m | –£250m |
| Non-HE non-S&R | –£847m | –£1,636m | –£2,380m | –£2,953m | –£1,245m |
| BIS RDEL | Real % change, 2010–11 to 2017–18 | | | | |
| | –36.2% | –40.6% | –44.7% | –47.8% | –38.4% |
| <i>of which:</i> | | | | | |
| Higher education | –60.5% | –60.5% | –60.5% | –60.5% | –60.5% |
| Non-HE | –20.7% | –27.8% | –34.6% | –39.8% | –24.3% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –8.1% | –8.1% | –8.1% | –8.1% | –8.1% |
| Non-HE non-S&R | –31.7% | –45.1% | –57.8% | –67.5% | –38.5% |

Table A.4. Implications of decreasing student intake by 3% p.a. for higher education and other BIS spending

| | Scenario for allocation of DEL between BIS and other departments: | | | | |
|---|---|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4a | 4b |
| BIS RDEL | Real £ million change, 2014–15 to 2017–18 (2013–14 prices) | | | | |
| | –£1,980m | –£2,769m | –£3,513m | –£4,086m | –£2,378m |
| <i>of which:</i> | | | | | |
| Higher education | –£1,070m | –£1,070m | –£1,070m | –£1,070m | –£1,070m |
| Non-HE | –£910m | –£1,699m | –£2,443m | –£3,016m | –£1,308m |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –£250m | –£250m | –£250m | –£250m | –£250m |
| Non-HE non-S&R | –£660m | –£1,449m | –£2,193m | –£2,776m | –£1,058m |
| BIS RDEL | Real % change, 2010–11 to 2017–18 | | | | |
| | –36.2% | –40.6% | –44.7% | –47.8% | –38.4% |
| <i>of which:</i> | | | | | |
| Higher education | –63.2% | –63.2% | –63.2% | –63.2% | –63.2% |
| Non-HE | –19.0% | –26.1% | –32.9% | –38.1% | –22.6% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –8.1% | –8.1% | –8.1% | –8.1% | –8.1% |
| Non-HE non-S&R | –28.5% | –41.9% | –54.6% | –64.3% | –35.3% |

Table A.5. Implications of increasing student intake by 3% p.a. for higher education and other BIS spending

| | Scenario for allocation of DEL between BIS and other departments: | | | | |
|---|---|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4a | 4b |
| | <i>Real £ million change, 2014–15 to 2017–18 (2013–14 prices)</i> | | | | |
| BIS RDEL | –£1,980m | –£2,769m | –£3,513m | –£4,086m | –£2,378m |
| <i>of which:</i> | | | | | |
| Higher education | –£685m | –£685m | –£685m | –£685m | –£685m |
| Non-HE | –£1,295m | –£2,084m | –£2,828m | –£3,401m | –£1,693m |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –£250m | –£250m | –£250m | –£250m | –£250m |
| Non-HE non-S&R | –£1,045m | –£1,834m | –£2,578m | –£3,151m | –£1,443m |
| | <i>Real % change, 2010–11 to 2017–18</i> | | | | |
| BIS RDEL | –36.2% | –40.6% | –44.7% | –47.8% | –38.4% |
| <i>of which:</i> | | | | | |
| Higher education | –57.7% | –57.7% | –57.7% | –57.7% | –57.7% |
| Non-HE | –22.5% | –29.6% | –36.4% | –41.6% | –26.1% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –8.1% | –8.1% | –8.1% | –8.1% | –8.1% |
| Non-HE non-S&R | –35.1% | –48.5% | –61.1% | –70.9% | –41.8% |

Table A.6a. Implications of abolishing the core element of the teaching grant for higher education and other BIS spending

| | Scenario for allocation of DEL between BIS and other departments: | | | | |
|---|---|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4a | 4b |
| | <i>Real £ million change, 2014–15 to 2017–18 (2013–14 prices)</i> | | | | |
| BIS RDEL | –£1,980m | –£2,769m | –£3,513m | –£4,086m | –£2,378m |
| <i>of which:</i> | | | | | |
| Higher education | –£1,624m | –£1,624m | –£1,624m | –£1,624m | –£1,624m |
| Non-HE | –£356m | –£1,145m | –£1,889m | –£2,462m | –£754m |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –£250m | –£250m | –£250m | –£250m | –£250m |
| Non-HE non-S&R | –£106m | –£895m | –£1,639m | –£2,212m | –£504m |
| | <i>Real % change, 2010–11 to 2017–18</i> | | | | |
| BIS RDEL | –36.2% | –40.6% | –44.7% | –47.8% | –38.4% |
| <i>of which:</i> | | | | | |
| Higher education | –71.0% | –71.0% | –71.0% | –71.0% | –71.0% |
| Non-HE | –14.0% | –21.1% | –27.9% | –33.0% | –17.6% |
| <i>of which if science and research frozen in cash terms:</i> | | | | | |
| Science and research | –8.1% | –8.1% | –8.1% | –8.1% | –8.1% |
| Non-HE non-S&R | –19.1% | –32.5% | –45.2% | –54.9% | –25.9% |

Table A.6b. Implications of abolishing the entire teaching grant for higher education and other BIS spending

| | Scenario for allocation of DEL between BIS and other departments: | | | | |
|----------------------|---|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4a | 4b |
| | Real £ million change, 2014–15 to 2017–18 (2013–14 prices) | | | | |
| BIS RDEL | –£1,980m | –£2,769m | –£3,513m | –£4,086m | –£2,378m |
| <i>of which:</i> | | | | | |
| Higher education | –£2,147m | –£2,147m | –£2,147m | –£2,147m | –£2,147m |
| Non-HE | £167m | –£622m | –£1,366m | –£1,939m | –£231m |
| | <i>of which if science and research frozen in cash terms:</i> | | | | |
| Science and research | –£250m | –£250m | –£250m | –£250m | –£250m |
| Non-HE non-S&R | £417m | –£372m | –£1,116m | –£1,689m | £19m |
| | Real % change, 2010–11 to 2017–18 | | | | |
| BIS RDEL | –36.2% | –40.6% | –44.7% | –47.8% | –38.4% |
| <i>of which:</i> | | | | | |
| Higher education | –78.4% | –78.4% | –78.4% | –78.4% | –78.4% |
| Non-HE | –9.2% | –16.4% | –23.1% | –28.3% | –12.8% |
| | <i>of which if science and research frozen in cash terms:</i> | | | | |
| Science and research | –8.1% | –8.1% | –8.1% | –8.1% | –8.1% |
| Non-HE non-S&R | –10.2% | –23.6% | –36.3% | –46.0% | –17.0% |

Table A.7. Implications of ‘baseline’ change in higher education spending for other areas of BIS non-investment spending, if total RDEL envelope increased by £11 billion (in today’s terms)

| | Scenario for allocation of DEL between BIS and other departments: | | | | |
|----------------------|---|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4a | 4b |
| | Real £ million change, 2014–15 to 2017–18 (2013–14 prices) | | | | |
| BIS RDEL | –£1,491m | –£1,865m | –£2,232m | –£2,516m | –£1,781m |
| <i>of which:</i> | | | | | |
| Higher education | –£883m | –£883m | –£883m | –£883m | –£883m |
| Non-HE | –£608m | –£982m | –£1,349m | –£1,633m | –£898m |
| | <i>of which if science and research frozen in cash terms:</i> | | | | |
| Science and research | –£250m | –£250m | –£250m | –£250m | –£250m |
| Non-HE non-S&R | –£358m | –£732m | –£1,098m | –£1,382m | –£648m |
| | Real % change, 2010–11 to 2017–18 | | | | |
| BIS RDEL | –33.5% | –35.6% | –37.6% | –39.2% | –35.1% |
| <i>of which:</i> | | | | | |
| Higher education | –60.5% | –60.5% | –60.5% | –60.5% | –60.5% |
| Non-HE | –16.2% | –19.6% | –23.0% | –25.5% | –18.9% |
| | <i>of which if science and research frozen in cash terms:</i> | | | | |
| Science and research | –8.1% | –8.1% | –8.1% | –8.1% | –8.1% |
| Non-HE non-S&R | –23.4% | –29.8% | –36.0% | –40.8% | –28.3% |

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