

## 8. Reforms to apprenticeship funding in England

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### Key findings

**The government is committed to 3 million apprenticeship starts in England in the five years from 2015 to 2020.**

Apprenticeships are full-time jobs with an accompanying skills development programme, which includes both on- and off-the-job training. The target of an average of 600,000 new apprentices a year in this parliament represents an increase of 20% on the level in 2014–15.

**From April 2017, the government is introducing an 'apprenticeship levy', which is a 0.5% tax on employers' paybill above £3 million per year.**

The Office for Budget Responsibility (OBR) estimates that the levy will raise £2.6 billion in 2017–18, rising to £2.8 billion in 2019–20. Most of the increase in revenue will not be used to fund apprenticeships. In England, apprenticeship funding is set to increase by £640 million in cash terms between 2016–17 and 2019–20.

**We estimate that at least 60% of employees work for an employer who will pay the levy.**

This is despite the fact that, as the government highlights, only 2% of employers will pay the levy (because they have large paybills). We would expect a payroll tax such as the apprenticeship levy to result in lower wages for employees. The OBR estimates that the levy will reduce aggregate wages by 0.3% by 2020–21.

**Government will pay over 90% of off-the-job training costs for apprenticeships, up to certain price caps.**

This will significantly increase the incentive to employ apprentices – particularly those aged 19 or over, for whom the government subsidy was previously 50% or lower.

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**The increased subsidies will incentivise employers to relabel existing training schemes as apprenticeships.**

This is one form of 'deadweight', with the government funding some training that would have occurred anyway. Such relabelling is made easier by the fact that employers can be funded to provide some training themselves.

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**Significant expansion of apprenticeships could come at the expense of quality.**

The new Institute for Apprenticeships may be under pressure to approve new apprenticeship standards quickly. An expanded role for Ofsted is welcome, but it has already expressed concerns about the quality of some of the apprenticeship schemes created more recently.

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**The government has set all large public sector bodies legally binding targets for apprenticeship starts each year.**

All public sector employers with at least 250 employees in England must employ new apprentices amounting to 2.3% of their headcount each year. This potentially costly policy is largely designed to hit the government's target for 3 million new apprentices, not as a way to increase the quality of public services. It should be removed.

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**There might be a strong case for expanding apprenticeships but the government has failed to make it.**

There has not been the collapse in training by employers that the government claims and the returns to public investment in apprenticeships are not nearly as high as the government suggests. However, young people in England are comparatively low skilled and research has found higher returns to apprenticeships than to other forms of vocational education. There is a good case for expanding apprenticeships, but perhaps more gradually and where we can ensure high-quality provision.

## 8.1 Introduction

The 2015 Conservative general election manifesto contained a commitment to 'support three million new apprenticeships, so young people acquire the skills to succeed'.<sup>1</sup> To help deliver this pledge, the then Chancellor George Osborne announced a new system of apprenticeship funding in the 2015 Summer Budget, with further proposals detailed in the government's five-year plan for apprenticeships published in December 2015. A desire to

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<sup>1</sup> Page 17 of <https://www.conservatives.com/manifesto>.

expand the system of apprenticeships has been expressed by all major UK political parties and the current government's focus on apprenticeships builds on commitments under the previous coalition and Labour governments.

Apprenticeships have existed in some form or other in the UK since at least the 12<sup>th</sup> century. They have taken many different forms over time, but have historically been focused on young people learning specific skills whilst working under the supervision of more highly skilled colleagues. The Conservative manifesto commitment (which has now been enacted as part of the Welfare Reform and Work Act 2016) concerns the number of publicly-funded apprenticeships starting in England between May 2015 and March 2020. To receive public funding, an apprenticeship must meet certain conditions. For example, it must involve a well-defined skill development programme agreed by government and employers, apprentices must spend at least 20% of their time attending off-the-job training in addition to on-the-job training, and this must last for at least a year. It is these publicly-funded apprenticeships that are the main focus of this chapter. We focus on apprenticeships in England, because the government's targets are only for England and it is in England where the reforms to policy are most radical.

Under the new system due to start in April 2017, employers across the UK will pay a levy equal to 0.5% of their paybill over £3 million per year. The Office for Budget Responsibility (OBR) estimates this will raise about £2.6 billion in 2017–18, rising to £2.8 billion in 2019–20. In England, the government will use its share of the levy to fund an expanded system of subsidies for employers taking on apprentices, with a subsidy of 90–100% of the direct cost of off-the-job training of apprentices up to a given set of price caps. Government spending on apprenticeships is not set to increase by the amount raised by the apprenticeship levy. According to the Department for Education, the budget for apprenticeships in England will rise from £1.8 billion in 2016–17 to £2.5 billion in 2019–20, representing a significant real-terms (after taking into account economy-wide changes in price levels over time) increase of 28% over three years, though the increase is only a fraction of the amount of tax revenue raised by the levy.<sup>2</sup> Alongside this, the government has created a target for all large public sector employers in England to take on new apprentices. This target is that the number of new apprentices joining an employer each year must be equal to 2.3% of that employer's overall headcount in that year. Apprenticeship funding is a devolved matter and it is the responsibility of the devolved administrations to decide how they allocate their share of the levy revenues.

This new system of apprenticeship funding represents a significant reform to public policy. However, it also represents just the latest instalment of decades of major policy reforms that have attempted to improve the quality of vocational education in the UK. These include the creation of Industrial Training Boards in the 1960s, their abolition in the 1980s, the creation of the Youth Training Scheme in the early 1980s, the creation of National Vocational Qualifications in the late 1980s, the creation of Modern Apprenticeships in the early 1990s and the creation of Train to Gain in the mid 2000s. Despite all these attempts, review after review has concluded that the quality of vocational education and the skills of UK workers need to be improved in order to increase productivity (e.g. the Leitch Review in 2006 and the Wolf Review in 2011). The new system

<sup>2</sup> Department for Education, 'Information on apprenticeship levy: data broken down by size and sector and the total apprenticeship budget', August 2016, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/545145/Apprenticeships\\_-\\_expected\\_levy\\_and\\_total\\_spend\\_-\\_Aug\\_2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/545145/Apprenticeships_-_expected_levy_and_total_spend_-_Aug_2016.pdf).

of apprenticeship funding represents the latest effort by government to deal with the 'skills problem'. The frequent changes to the structure and nature of vocational education stand in contrast to the relative constancy and clarity that have existed for academic routes. The policy of successive governments for the last 30 years has been to expand the proportion of young people going into higher education, which has risen from around one-in-six young people in the 1980s to around one-in-two today.<sup>3</sup>

Given that young people are now legally required to stay in some form of education or training until age 18, 16-year-olds today largely have three options: an academic path consisting of A levels and possibly higher education; studying vocational qualifications at further education or sixth form colleges; or doing an apprenticeship. It is not yet clear whether the new system of apprenticeships is intended to act as a significant alternative for young people who would otherwise have gone down the academic path, or whether it is mostly intended to attract young people who would otherwise have studied vocational qualifications in further education or sixth form colleges after age 16. However, the policy is clearly not just targeted at young people, with most of the expansion of apprenticeships in the last six years accounted for by growth among those aged 25 and over. Moreover, it is this group that is due to experience the largest increase in subsidy for apprenticeship training in the new funding system starting in April 2017.

What matters is how these reforms will affect the levels of and types of training done by employers, workers' wages, skills and productivity, and firms' overall performance. To help answer this important set of questions, this chapter does three things. In Section 8.2, we evaluate the rationale for the proposed expansion of funding for apprenticeships in England. In Section 8.3, we describe the key details of the new policy and set it in a longer-term policy context, including how numbers and types of apprentices have evolved to date. In Section 8.4, we analyse the likely effects of the new system of apprenticeship funding on employers' and individual workers' incentives to invest in training and on employment, skills, productivity and wages, and the impact of new targets for employing apprentices in the public sector. Section 8.5 concludes.

## 8.2 Evaluating the case for government intervention

The new system of apprenticeship funding in England represents a significant reform. The government will collect a substantial sum of money from employers via the apprenticeship levy, increase government subsidies for the training costs of apprenticeships, and create a new system of regulation in an effort to ensure this training is of high quality.

The government's ultimate aim from this reform is to improve productivity through improving the skills of workers by increasing the quantity and quality of vocational

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<sup>3</sup> Figure from 1980s based on D. Finegold, 'The roles of higher education in a knowledge economy', Rutgers University, mimeo, 2006, <http://www.heart-resources.org/wp-content/uploads/2015/10/The-Roles-of-Higher-Education-in-a-Knowledge-Economy.pdf?e4e997>. Figure for today based on estimate of higher education initial participation rate for 2014–15 ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/552886/HEIPR\\_PUBLICATION\\_2014-15.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/552886/HEIPR_PUBLICATION_2014-15.pdf)).

training they receive. In its five-year plan for apprenticeships in England,<sup>4</sup> the government argues that the productivity of workers in the UK is below that in other comparable countries and that the skills of young workers are also comparatively low. It also argues that employers underinvest in the training of workers because employers do not expect to reap all the benefits of such training and that this problem has been getting worse over time. The government cites research saying that the economic returns to apprenticeships are significant (with £26–28 of economic benefit generated for each £1 of investment). This is then used to justify the new system of apprenticeship funding due to come into operation in April 2017.

Before we detail the specific aspects of this reform and its likely effects, this section briefly evaluates the case for expanding public subsidies for apprenticeships.

### Levels of skills and education

It is well known that worker productivity in the UK is below that in other major economies. For example, in 2015, output per hour worked was below that in Germany, France and the United States, by 21%, 22% and 23% respectively, although it was 22% higher than in Japan.<sup>5</sup> International surveys have also suggested that young people in England have lower levels of numeracy and literacy skills than those in other countries.<sup>6</sup> Indeed, England is also relatively unusual in the pattern of skills across age groups. Across most countries, younger age groups have higher levels of numeracy than older age groups (and, in some cases, much higher levels of numeracy), potentially reflecting increases in skills across generations. This is not the case in England, where young people aged 16–24 have a similar level of skills to the oldest age group (those aged 55–64) in spite of increased levels of formal education (e.g. more young people leaving school with GCSEs). This evidence is potentially a major cause for concern as, unless it reflects reduced deterioration of skills with age in England compared with elsewhere, it could suggest that skills are not improving across generations, whilst they are elsewhere.

A lack of skills amongst UK workers has long been recognised by policymakers. In 2006, the Leitch Review of Skills recommended a series of objectives for increasing the skills of UK workers.<sup>7</sup> The government at the time subsequently instituted a series of additional subsidies and policies to incentivise employers to invest more in training, particularly in the form of Level 2 vocational qualifications (the equivalent of five GCSEs graded A\*–C). This included policies such as Train to Gain, which provided additional free training courses to employees who lacked GCSE-level qualifications and/or basic skills, and offered subsidies to employers to compensate for wage costs of employees when attending courses.

<sup>4</sup> HM Government, *English Apprenticeships: Our 2020 Vision*, December 2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf).

<sup>5</sup> These figures are calculated from the OECD productivity statistics, which are compiled on a comparable basis. Of course, the workforce's skills are not the only driver of productivity differences. Other issues – such as the types of capital that labour is combined with, how that capital is allocated and the technology utilised by companies – are all important in determining productivity.

<sup>6</sup> <http://www.oecd.org/skills/piaac/Country%20note%20-%20United%20Kingdom.pdf>.

<sup>7</sup> [http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/independent\\_reviews/leitch\\_review/review\\_leitch\\_index.cfm](http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/independent_reviews/leitch_review/review_leitch_index.cfm).

Looking at the level of formal education possessed by young people in the UK compared with other countries, the proportion of young people aged 25–34 who leave education with below upper-secondary-level qualifications (e.g. have not achieved five or more GCSEs or equivalent at A\*–C) is similar to that seen in other OECD countries (around 15%<sup>8</sup>). However, a much greater share go on to the equivalent of higher education and a lower share leave with intermediate-level qualifications (e.g. A-level or other Level 3 qualifications.) To be specific, 49% of people aged 25–34 in the UK have completed tertiary-level education compared with 42%, on average, across OECD countries, whilst 36% have completed upper-secondary or post-secondary non-tertiary qualifications in the UK compared with an OECD average of 43%.<sup>9</sup> It is also notable that the UK makes relatively little use of vocational upper-secondary education routes compared with other countries.

More worryingly, the 2011 Wolf Review of Vocational Education concluded that many of the vocational qualifications that are offered are of relatively low quality and have relatively low economic return.<sup>10</sup> The Wolf Review recommended greater focus on apprenticeships (as did the Leitch Review), which were claimed to have higher economic returns. To date, the UK has made relatively little use of apprenticeship training. The government quotes figures showing that, in 2008–09, there were 11 apprentices per thousand employees in England whilst this number was as high as 43 in Switzerland, 40 in Germany and 39 in Australia.<sup>11</sup> As we show in Section 8.3, the UK number has been steadily increasing since the mid 2000s, but is still likely to be well below that seen in many other countries. Such figures do not demonstrate a problem in itself, but do represent a clear difference compared with other countries.

The UK does have a productivity and skills problem compared with other countries, which comes in spite of the high and increasing levels of formal education possessed by UK workers. This has been the focus of policymakers' attention for a long time. One persistent set of concerns amongst policymakers is that vocational education is relatively low quality and that use of apprenticeship training is relatively low compared with other countries. The extent to which lower use of apprenticeship training contributes to a skills problem, however, is far from clear.

### Employers' investment in training

One motivation highlighted by the government for reforms and extra public funding for apprenticeships is that employers are likely to underinvest in training. Economists have long recognised that employers have incentives to underinvest in the training and skills of their workers.<sup>12</sup> If employees can switch employers fairly costlessly, it is likely to be

<sup>8</sup> Note that this is much lower than the proportion leaving without the standard benchmark of five or more GCSEs at A\*–C *including maths and English*, which was about 43% for state-funded schools in 2015–16 (<https://www.gov.uk/government/statistics/gcse-and-equivalent-results-2015-to-2016-provisional>).

<sup>9</sup> Authors' calculations using tables A1.2 and A1.3 of OECD, *Education at a Glance 2016*, <http://dx.doi.org/10.1787/888933396517>.

<sup>10</sup> <https://www.gov.uk/government/publications/review-of-vocational-education-the-wolf-report>.

<sup>11</sup> Page 7 of HM Government, *English Apprenticeships: Our 2020 Vision*, December 2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf).

<sup>12</sup> A.C. Pigou, *Wealth and Welfare*, Macmillan, London, 1912; G. Becker, *Human Capital*, Columbia University Press, New York, 1964; M. Stevens, 'Human capital theory and UK vocational training policy', *Oxford Review of Economic Policy*, 1999, 15, 16–32; D. Acemoglu and J. Pischke, 'Why do firms train?', *Quarterly Journal of Economics*, 1998, 113, 79–119; E. Leuven, 'The economics of private sector training: a survey of the literature', *Journal of Economic Surveys*, 2005, 19, 91–111.

workers who are the principal beneficiaries of any training, in the form of higher wages, because employers will need to pay them at the level their productivity warrants in order to retain them. This gives employers little incentive to invest in training in the first place. If employees are not able to switch employers as freely, then employers can reap some of the benefit in the form of higher profits by holding employees' wages down below the level that their current productivity would warrant. This would give employers some financial incentive to invest in training for their workers, but probably below the socially optimal level.

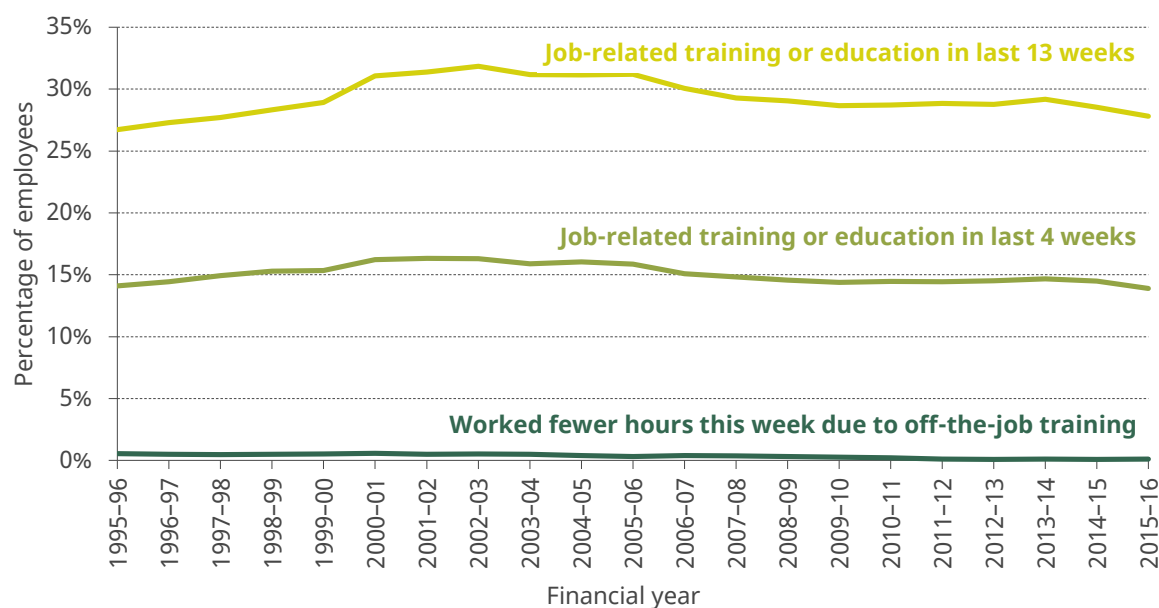
And while workers might reap significant rewards from training, they may be unable to finance training, may not fully appreciate the likely rewards, and face considerable uncertainty as to how beneficial the training will actually turn out to be.

All this means we could easily end up in a situation in which, from society's point of view, employers and workers might be underinvesting in training. This could justify some degree of public subsidy towards training, which we have had in many forms over time (e.g. Train to Gain and existing apprenticeship subsidies).

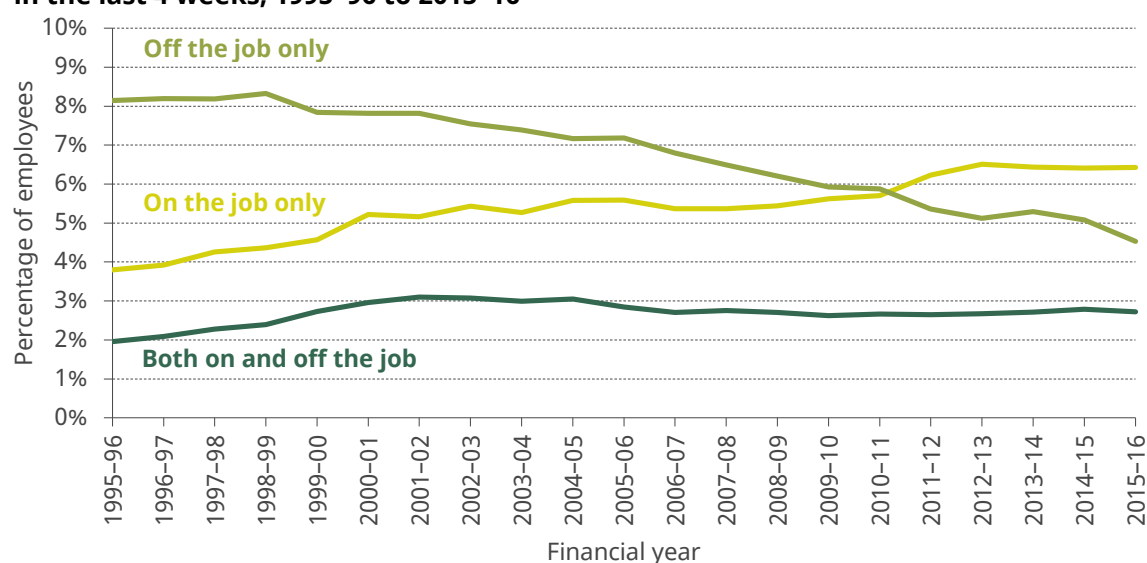
The government partly justifies additional subsidies for apprenticeship training by claiming that this underinvestment problem has been getting worse over time. In particular, the 2015 Summer Budget and the government's vision for apprenticeships published in December 2015 both quote figures, derived from the Labour Force Survey (LFS), showing a rapid decline in the number of employees attending off-the-job training in the past week, from around 150,000 employees in the mid 1990s to about 20,000 in 2014. This is a fall of more than 80% and certainly looks dramatic. However, it is just one rather peculiar measure, which looks at the number of employees who have worked fewer hours than usual in the past week because they attended off-the-job training. It depends on how people report their hours (in particular whether they regard undertaking training as working fewer hours) and it ignores on-the-job training.

As Figure 8.1 shows, a more useful way of describing this apparently enormous drop is to say that the proportion of employees engaging in this particular form of training fell from 0.5% in the mid 1990s to 0.1% in 2014 – an 80% drop in a very small number, which is a drop of only 0.4 percentage points. This change is barely visible when placed alongside changes in other measures of training taken from the same LFS data: the proportion of employees who report having received any job-related training (i.e. on or off the job) in the past 4 weeks and past 13 weeks. In 2014, 14% of employees reported receiving job-related training in the past 4 weeks, which is slightly down on a figure of 16% in the early 2000s, but similar to the level in the mid 1990s. If we ask about a longer window (the proportion of workers who report receiving some form of education or training in the past 13 weeks), the proportion of workers who report having received training is, of course, higher still, at around a third of all employees, and the trend over time is similar, with a slight rise between the mid 1990s and mid 2000s, followed by a decline afterwards.<sup>13</sup>

<sup>13</sup> As is shown in Figure 8A.1 in the appendix, job-related training is more prevalent among employees aged 16–39 than it is for employees aged 40–59, although the fall in training has been larger for the younger group than for the older group.

**Figure 8.1. Percentage of employees who report receiving job-related training, 1995–96 to 2015–16**

Source: Authors' calculations using Quarterly LFS, 1995 to 2015. Restricted to employees aged 16–59.

**Figure 8.2. Percentage of employees who report receiving on and off the job training in the last 4 weeks, 1995–96 to 2015–16**

Source: Authors' calculations using Quarterly LFS, 1995 to 2015. Restricted to employees aged 16–59.

Figure 8.2 splits the proportion who report having received job-related training in the past 4 weeks (i.e. the middle series shown in Figure 8.1) into those who received it exclusively off the job, those who received it exclusively on the job and those who received a combination of the two. This shows that there has been a clear shift towards more on-the-job training and less off-the-job training. Between the mid 1990s and the mid 2010s, the proportion of employees who report receiving exclusively off-the-job training declines



from about 8% to 4½%, the proportion receiving exclusively on-the-job training increases from 3¾% to 6½% and the proportion receiving a combination rises from 2% to 2¾%.<sup>14</sup>

In using evidence to set out and explain policy, it is incumbent on government to do so in a reasonably full and balanced way. Choosing one particular and very partial measure to suggest that there is a much bigger problem than other more comprehensive data would suggest, risks undermining faith in what might be perfectly sensible policy directions.

Levels of training have declined slightly since the mid 2000s, but there has been no precipitous decline. The proportion of employees receiving some form of training is currently at a similar level to that seen in the mid 1990s. The big change has been in the type of training received, with a shift towards on-the-job training and away from off-the-job training. It is not clear that this change in the mix of training is necessarily a good or bad thing. However, it is important to note it, as the new system of apprenticeship funding will be targeted towards off-the-job training.

In terms of levels of expenditure on training by employers, the Employer Skills Survey estimates that UK employers spent £45.4 billion on job-related training in 2015 (equivalent to around 2.5% of national income or about 6% of total employee wages and salaries in the UK).<sup>15</sup> About half of this figure was spent on off-the-job training, with trainee wage costs accounting for about £7.7 billion and direct training costs accounting for about £15.2 billion in 2015. A further £23 billion was reported to be spent on on-the-job training, with £14 billion on trainee wage costs and £9 billion on trainers' wage costs. Since 2011, employers' reported expenditure on training has fallen by about 2% in real terms (deflating using a measure of economy-wide inflation), which is consistent with the small falls in training for workers we saw in Figures 8.1 and 8.2.

### Economic returns to apprenticeships

The new system of apprenticeship funding will increase the public subsidy provided to employers for the costs of training workers, but only if such training is in the form of an apprenticeship and only for off-the-job training costs. The government justifies this approach partly by claiming high economic returns to public funding of apprenticeships. Indeed, the government's five-year plan for the expansion of apprenticeships in England says:<sup>16</sup>

*These benefits translate into significant monetary returns for individuals over a working life. These add up to between £48,000 and £74,000 for level 2 apprenticeships; and between £77,000 and £117,000 for level 3 apprenticeships. Those completing an apprenticeship at level 4 or above could earn £150,000 more on average over their lifetime. ...These benefits lead to a*

<sup>14</sup> Such headline findings are confirmed in other research on levels of training over time (F. Green, A. Felstead, D. Gallie, H. Inanc and N. Jewson, 'What has been happening to the training of workers in Britain?', Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES), Research Paper 43, 2013, <http://www.llakes.org/wp-content/uploads/2013/12/43.-Green-et-al.pdf>). This work also argues that there has been a decline in the intensity of training over time (hours per employee spent on training courses). However, this conclusion is only reached based on data for 1995–98 and 2006–10, as data for other years are not currently available.

<sup>15</sup> <https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-report>; ONS series NQAU, <https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/nqau/bb>; ONS series, ABMI, <https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/abmi/ukea>.

<sup>16</sup> Page 3 of HM Government, *English Apprenticeships: Our 2020 Vision*, December 2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf).

*significant return for the taxpayer too: the amount of return is between £26 and £28 for every £1 of government investment in apprenticeships at level 2 and level 3 respectively.*

Are the returns to apprenticeship funding likely to be as high as this and, more generally, is there a well-founded argument for skewing public funding more towards apprenticeships than is the case at present?

A ratio of benefits to costs equal to 26 or 28 to 1 would be extremely high for any area of public policy. In this case, it would imply that increasing government funding of apprenticeships by £1 billion would generate additional economic activity of more than £26 billion, or around 1.4% of current national income. If this were true, then the logical response would be to aim for a huge expansion of apprenticeships. Furthermore, the same research finds that the benefits to public funding of standard Level 2 vocational qualifications (equivalent to five GCSEs at Grade C or above) are around 21 to 1.<sup>17</sup>

Numbers like this look, and indeed are, too good to be true. They are based on a number of highly questionable assumptions<sup>18</sup> – very low ‘deadweight’ (i.e. the vast majority of those receiving a subsidy would have done no training in the absence of the subsidy), that there are very big spillover effects (i.e. those with whom apprentices work get an uplift in their salary equal to the uplift enjoyed by those who actually get the qualifications) and that the best way of measuring returns is to compare the wages of those who complete qualifications with those who attempt, but drop out of, the same courses.

Put these together and you end up with a wildly overstated case. Again this cavalier use of evidence risks undermining what might in fact be a perfectly good case for policy action.

<sup>17</sup> *Measuring the Net Present Value of Further Education in England*, BIS Research Paper 229, 2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/435166/bis\\_15\\_323\\_Measuring\\_the\\_Net\\_Present\\_Value\\_of\\_Further\\_Education\\_in\\_England.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/435166/bis_15_323_Measuring_the_Net_Present_Value_of_Further_Education_in_England.pdf).

<sup>18</sup> For example, the model used to generate the quoted set of figures assumes no deadweight. Alternative estimates assuming deadweight of 30% are published (i.e. 70% of current apprentices would not have taken this qualification and would only have completed the next-lowest qualification), which give estimated benefit-to-cost ratios of 18–20 to 1. However, even this figure of 30% is optimistic. Other research has found that the deadweight associated with training subsidies can be 90–100% (e.g. E. Leuven and H. Oosterbeek, ‘Evaluating the effect of tax deductions on training’, *Journal of Labor Economics*, 2004, 22, 461–88; L. Abramovsky, E. Battistini, E. Fitzsimons, A. Goodman and H. Simpson, ‘Providing employers with incentives to train low-skilled workers: evidence from the UK Employer Training Pilots’, *Journal of Labor Economics*, 2011, 29, 153–93).

The model also assumes spillover effects on other workers’ wages (through higher productivity) equal to 100% of the increase in wages for those who take apprenticeships (based on findings in L. Dearden, H. Reed and J. Van Reenen, ‘The impact of training on productivity and wages: evidence from British panel data’, *Oxford Bulletin of Economics and Statistics*, 2006, 68, 397–421). Other work has found similarly large spillovers on overall productivity (J. Konings and C. Vanormelingen, ‘The impact of training on productivity and wages: firm-level evidence’, *Review of Economics and Statistics*, 2015, 97, 485–97). However, others find that spillover effects are relatively small, e.g. around 5% (A. De Grip and J. Sauermann, ‘The effects of training on own and co-worker productivity: evidence from a field experiment’, *Economic Journal*, 2012, 122, 376–99).

Lastly, the figures are based on estimated returns to qualifications that use people who started, but failed to achieve, a qualification as a control group (D. Bibby, F. Buscha, A. Cerqua, D. Thomson and P. Urwin, *Estimation of the Labour Market Returns to Qualifications Gained in English Further Education*, BIS Research Paper 195, 2014,

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/383646/Estimation\\_of\\_the\\_labour\\_market\\_returns\\_to\\_qualifications\\_gained\\_in\\_English\\_Further\\_Education\\_-\\_Final\\_-\\_November\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383646/Estimation_of_the_labour_market_returns_to_qualifications_gained_in_English_Further_Education_-_Final_-_November_2014.pdf)).

This is a highly questionable comparison to make given that those who fail to complete a qualification are likely to be different from those who succeeded in unobserved ways that are likely to affect earnings in the labour market – e.g. lower motivation or suffering a negative health shock – and lead to an upward bias in the estimated returns.

For none of this means that there is not still a good economic case for skewing public subsidies more towards apprenticeships. Indeed, the government is right to argue that the qualitative finding of higher wage returns for apprenticeships versus other vocational qualifications is well established in the literature to date, even if the absolute levels of returns are contested.<sup>19</sup> Furthermore, there are already large public subsidies for qualifications taken in further education, many of which are found to have low economic returns, and in higher education (either as grants to educational institutions or as subsidies for student loans), which might be skewing educational choices towards these formal education routes away from apprenticeships. Providing greater public subsidies to apprenticeships could be seen as reducing such a distortion, moving us towards a more level playing field.

That said, however, there is no guarantee that the new apprenticeships will generate similar economic returns to those that have been delivered to date. Apprenticeships are being developed in a whole series of new occupations and industries where they have been rarely used before. The likely economic returns to such a shift will depend heavily on the quality of regulation that the government puts in place and what individuals would be doing if they did not do an apprenticeship. Ensuring the system of regulation is effective is much easier said than done, however, and will involve a series of detailed policy questions. Which forms of training will be accredited as apprenticeships? What content will go into individual apprenticeships? How much subsidy will be provided to different forms and levels of apprenticeships? Which training providers will be authorised to provide training courses and how will the quality of the courses they offer be monitored? How will different apprenticeships be evaluated? The institutions and rules put in place to deal with these questions will have a major bearing on the quality of the new apprenticeships. Indeed, the 2011 Wolf Review argued that it was the system of regulation and incentives in the funding system for further education that could explain why so many young people at the time were taking vocational courses with relatively low economic returns.

## Summary

The government's stated case for expanding subsidies for apprenticeships is weak. There has been no collapse in training by employers (though there has been a shift from off-the-job towards on-the-job training) and the returns to public investments are not nearly as high as 26 to 1. However, there may still be a good case for expanding public subsidies for apprenticeships. Young people in England are relatively low skilled compared with their peers in other countries; what vocational education does exist in the UK is perceived to be of low quality; research has found higher returns to apprenticeships than to other forms of vocational education; and there are already significant public subsidies for formal further or higher education. There are a number of important issues of policy detail that will determine the success of expanded apprenticeship funding. In the next section, we detail the evolution and plans for policy on apprenticeship funding in England, before then addressing the likely impact of the new regime in Section 8.4.

<sup>19</sup> L. Dearden, L. McGranahan and B. Sianesi, 'An in-depth analysis of the returns to National Vocational Qualifications obtained at Level 2', Centre for the Economics of Education (CEE), Discussion Paper 46, 2004; A. Jenkins, C. Greenwood and A. Vignoles, 'The returns to qualifications in England: updating the evidence base on Level 2 and Level 3 vocational qualifications', Centre for the Economics of Education (CEE), Discussion Paper 89, 2007; Bibby et al., 2014 (see footnote 18); S. McIntosh, and D. Morris, 'Labour market returns to vocational qualifications in the Labour Force Survey', Centre for Vocational Education Research (CVER), Discussion Paper 2, 2016, <http://cver.lse.ac.uk/textonly/cver/pubs/cverdp002.pdf>.

### 8.3 Apprenticeships policy: past, present and future

Apprenticeships have been the focus of policymakers' attention for well over a decade now, with an increase in apprenticeships following the Leitch Review in the mid 2000s and an increase in the number of apprenticeships under the coalition government to meet a target of 2 million new apprenticeships. The Conservative party 2015 general election manifesto included a further commitment for 3 million apprenticeship starts in England between 2015 and 2020, which is now a legally binding target.

In this section, we set out what an apprenticeship is and provide some simple background information on apprenticeships. We discuss how government currently subsidises apprenticeships and how that is changing in light of the new apprenticeship levy.

#### What is an apprenticeship?

The history of apprenticeships in the UK dates back to the 12<sup>th</sup> century, when craftsmen began to take on minors who were bound to them for five to nine years for training and apprenticeships were often administered by local craft guilds. Government first took steps to regulate training through apprenticeships in 1563 but this legislation was relaxed during the Industrial Revolution. However, the Industrial Revolution also created a host of newer industries where the apprenticeship system was adopted, and growth in apprentice numbers continued until around 35% of boys were leaving school to become apprentices by the 1960s.<sup>20</sup>

In the 1960s, Industrial Training Boards were set up by the government, each with the responsibility for determining training needs within its sector. These boards were given statutory powers to publish course outlines for apprenticeships, determine standards to be reached and impose a training levy on employers to fund training (which bears a striking resemblance to the new system). However, the boards were abolished in 1982 in a return to a more voluntarist reliance on sector-based organisations without such powers. A combination of a decline in skilled manual jobs and the rise in post-16 education meant that the number of apprentices dropped from a high of 243,700 in 1966 to just 53,000 by 1990.<sup>21</sup>

In 1994, the Conservative government launched 'Modern Apprenticeships'. Modern Apprentices would receive a wage as employees and were required to work towards a National Qualifications Framework (NQF) Level 3 qualification (equivalent to two A levels). This forms the basis of the current set-up, albeit with numerous reforms and adjustments having been made over the past 20 years. Foundation Modern Apprenticeships at Level 2 were set up in 2000, and higher-level apprenticeships became available from 2004. The upper age limit of 25 for apprentices was abolished in 2003.

The Skills Funding Agency, responsible for overseeing funding for skills training for further education in England, now defines an apprenticeship to be 'a job with an accompanying

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<sup>20</sup> For details on the history of apprenticeships, see M. Harris, *Modern Apprenticeships: An Assessment of the Government's Flagship Training Programme*, Policy Paper, Institute of Directors, 2003.

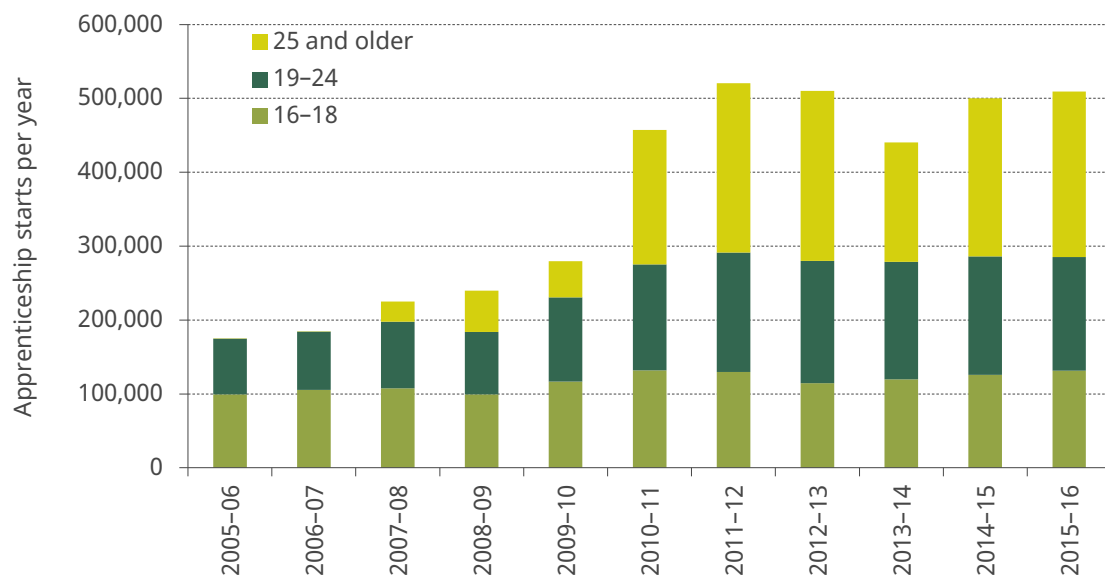
<sup>21</sup> Page 37 of H. Gospel, 'The decline of apprenticeship training in Britain', *Industrial Relations Journal*, 1995, 26, 32–44. These figures are from the Department of Employment and are based on employer reporting – Gospel writes that they 'probably tended to underestimate the number of apprentices because of the failure of smaller employers to report enrolments'.

skills development programme designed by employers in the sector'.<sup>22</sup> In order to be eligible for government funding (and apprenticeships thus defined are the scope of this chapter),<sup>23</sup> an apprenticeship must be a full-time paid job (of at least 30 hours a week), lasting at least 12 months, which incorporates both on- and off-the-job training. A fifth of the apprentice's time must be composed of off-the-job training. In addition, each apprenticeship must fulfil the criteria under a government-approved 'framework' or 'standard', which specifies the qualifications and skills that need to be gained as part of the apprenticeship. In general, government funding is only provided to apprenticeships that are at NQF levels above that which an individual already holds. Therefore, while individuals with undergraduate university degrees can be apprentices, the government will only provide public funding if the apprenticeship is equivalent to a postgraduate qualification (level 7 or above).<sup>24</sup>

### Recent trends in apprenticeships

Figure 8.3 shows recent trends in the number of apprenticeships since the mid 2000s, when the numbers began to expand. In particular, it shows the number of apprenticeships that commenced in each financial year from 2005–06 to 2015–16 and splits the number of 'apprenticeship starts' into those undertaken by 16- to 18-year-olds,

**Figure 8.3. Number of apprenticeships commenced in each year in England, by age group, 2005–06 to 2015–16**



Note: Each year in the data runs from the beginning of August to the end of July in the following calendar year.

Source: Department for Education, 'FE data library: apprenticeships', <https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>.

<sup>22</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/393819/Statement-on-Apprenticeship-QualityV1.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/393819/Statement-on-Apprenticeship-QualityV1.pdf).

<sup>23</sup> Employers are able to offer, and many do, their own internal, privately-funded apprenticeships. These are not recorded as apprenticeships in the numbers presented in this chapter on apprenticeship starts in England, and similarly do not count towards the government's target.

<sup>24</sup> See page 11 of [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/510198/Apprenticeship\\_standards\\_funding\\_rules\\_2016\\_to\\_2017\\_v2\\_FINAL.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/510198/Apprenticeship_standards_funding_rules_2016_to_2017_v2_FINAL.pdf).

19- to 24-year-olds and people aged 25 and over. Since 2010–11, between roughly 400,000 and 500,000 apprenticeships have commenced in each year, with 509,000 starting in 2015–16. This level is significantly higher than that between 2005–06 and 2009–10. Of the 509,000 starts in 2015–16, 26% were by 16- to 18-year-olds, 30% by 19- to 24-year-olds and the largest number, 44%, by those aged 25 and over. This is a remarkable change in the age profile of apprentices: 10 years ago, virtually all apprentices were under 25. The growth in the number of apprenticeships for those aged 25 and over has driven almost all of the increase in the number of apprenticeships since 2009–10.

Importantly, it is not clear that the increase in the number of apprenticeships reflects an increase in training. The increase between 2009–10 and 2010–11 for those aged 25 and over is likely to reflect, at least partly, the reduction of funding for the Train to Gain programme – which subsidised employer training of (primarily) those aged 25 and over – and the diverting of that funding towards apprenticeships. This implies that a lot of the increase is in fact ‘relabelling’ of training as apprenticeships.<sup>25</sup>

In order to meet the commitment to deliver 3 million apprenticeship starts in England between 2015 and 2020, the number of new apprenticeships would need to average 600,000 a year over that period, 20% higher than their level in 2014–15.<sup>26</sup> Larger increases have happened before (e.g. in 2010, when government funds were diverted from the Train to Gain programme). However, numbers have been relatively steady at around 500,000 per year for much of the past five years, implying that a large increase may not be easy to produce. Moreover, the number of 18-year-olds in England in mid 2015 was 661,000. This implies that, unless a significant number of individuals undertake multiple apprenticeships in the course of their career, a long-run target of 600,000 apprenticeships per year is unsustainable, as it would mean about 90% of young people in England taking an apprenticeship at some point. Of course, in the short term, it might be possible to introduce more apprenticeships by training older employees who did not previously undertake one. But as a long-term goal, a 600,000 target is likely to be far too high to be sensible unless it is advisable for large numbers of people to do multiple apprenticeships.

There are four levels of apprenticeships:

- *intermediate apprenticeships* – equivalent to National Qualifications Framework Level 2 (itself equivalent to five A\*–C grades at GCSE);
- *advanced apprenticeships* – equivalent to NQF Level 3 or two A–E grades at A level;
- *higher apprenticeships* – equivalent to at least a Level 4 qualification (such as a Higher National Certificate);
- *degree-level apprenticeship* – equivalent to an undergraduate degree.

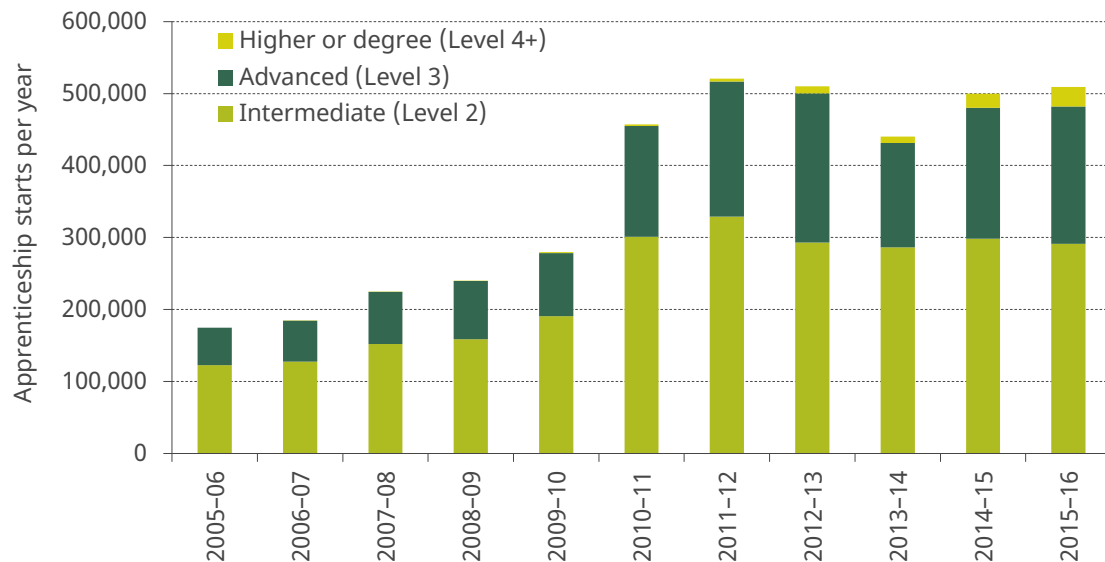
Figure 8.4 shows the number of apprenticeships started in each year by the type of apprenticeship, with higher and degree-level apprenticeships aggregated together. In

<sup>25</sup> For more details, see BIS, ‘Funding letter to Skills Funding Agency: 2010–11’, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/31996/10-1013-sfa-funding-letter-2010-11.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31996/10-1013-sfa-funding-letter-2010-11.pdf) and R. Lupton, L. Unwin and S. Thomson, ‘The coalition’s record on further and higher education and skills: policy, spending and outcomes 2010–2015’, Social Policy in a Cold Climate, Working Paper 14, <http://sticerd.lse.ac.uk/dps/case/spcc/wp14.pdf>.

<sup>26</sup> Given that there were 509,000 apprenticeship starts in England in 2015–16, this means that between 2016–17 and 2019–20 there must be 2,491,000 apprenticeship starts in England to meet the target – i.e. an average of 623,000 apprentice starts per year.

2015–16, the majority of apprenticeships were at the intermediate level (291,000, equivalent to 57% of starts), while most of the rest were advanced level (191,000 or 37%). A very small fraction were higher or degree-level (27,000 or 5%). Although the largest proportional growth has been in ‘higher’ apprenticeships, most of the increase in apprenticeship numbers since 2008–09 has come from intermediate and advanced qualifications.

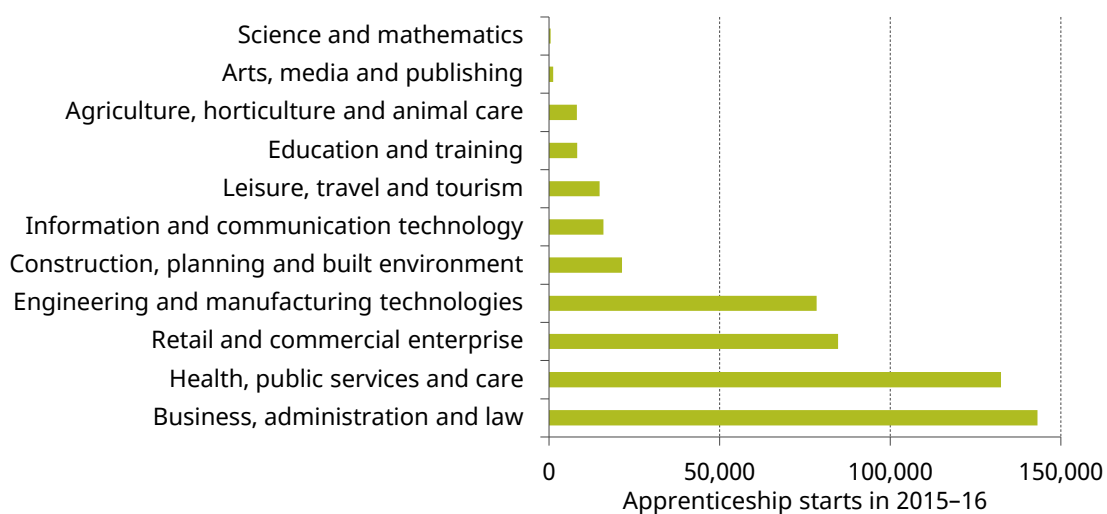
**Figure 8.4. Number of apprenticeships commenced in each year in England, by apprenticeship level, 2005–06 to 2015–16**



Note: Each year in the data runs from the beginning of August to the end of July in the following calendar year.

Source: Department for Education, ‘FE data library: apprenticeships’,  
<https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>.

**Figure 8.5. Number of apprenticeships commenced in England, by subject area, 2015–16**



Note: 2015–16 in the data runs from the beginning of August 2015 to the end of July 2016.

Source: Department for Education, ‘FE data library: apprenticeships’,  
<https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>.



Figure 8.5 shows the number of apprenticeships started in the academic year 2015–16, broken down by the subject area of the apprenticeship. Four categories – business, administration and law; health, public services and care; retail and commercial enterprise; and engineering and manufacturing technologies – account for 86% of all apprenticeship starts. As the overall number of apprenticeship starts has remained fairly constant since 2011–12, so has the balance of apprenticeships between different subject areas.

### Existing apprenticeship policy

To date, apprenticeships in England have been subsidised by government depending on the age of the apprentice. The government would only contribute towards the ‘training costs’ – which means the direct cost of the off-the-job training that is carried out – not the wages of the apprentices or of those who supervise and manage them. The subsidy provided to date is as follows:

- 100% of training costs for 16- to 18-year-olds;
- 50% of training costs for 19- to 23-year-olds;
- 40% of training costs for those aged 24 and over (although this rate can vary).<sup>27</sup>

This system of funding is being phased out and replaced with a new system, set out below, which is to be introduced in May 2017.

There are two other important policies related to apprenticeships that are currently in place and – unlike the set of subsidies outlined above – are set to remain in place from 2017–18 onwards.

First, there is a lower national minimum wage rate for certain apprentices. The minimum wage rate for apprentices was introduced in October 2010, set at £2.50 per hour (compared with the then £5.93 for the main rate). Prior to this, apprentices were exempt from the minimum wage.<sup>28</sup> By April 2017, the minimum wage for apprentices will reach £3.50, compared with the national living wage (for those aged 25 and over) of £7.50 and the national minimum wage (for those aged 21–24) of £7.05. The apprenticeship minimum wage is applied to apprentices aged 16–18, and to apprentices aged 19 and over who are in the first year of their apprenticeship. After their first year, apprentices aged 19 and over are entitled to the minimum wage rate commensurate with non-apprentices of their age.

Second, since April 2016, employers do not have to pay employer National Insurance contributions (NICs) on the earnings of apprentices aged under 25, for earnings up to the upper earnings limit (£866 per week in 2017–18). The employer NICs rate is 13.8% of earnings above £157 per week (in 2017–18), implying substantial savings for employers that employ apprentices who earn significantly above that threshold.<sup>29</sup> However, since

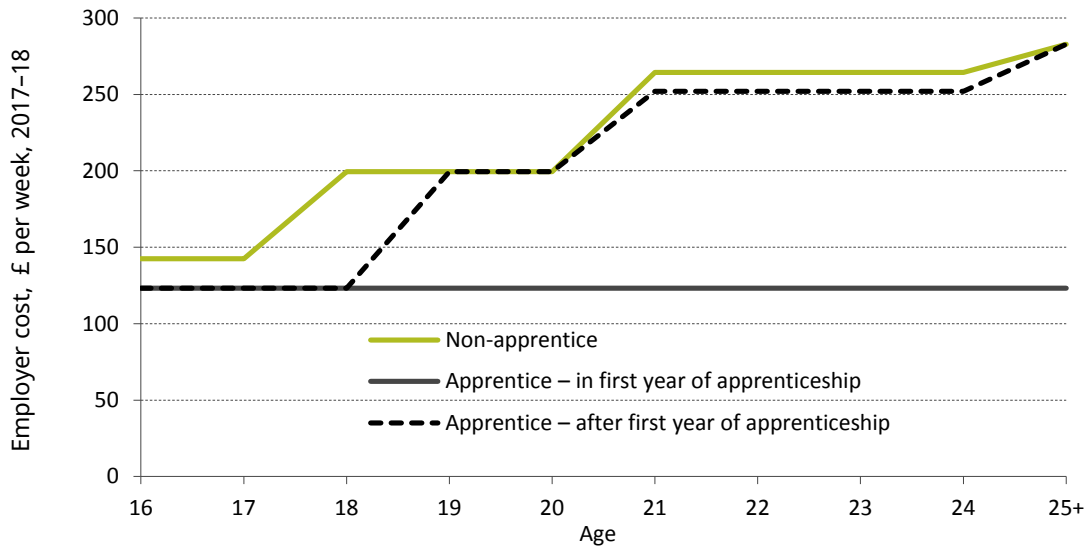
<sup>27</sup> For apprenticeships commencing before August 2017, there is also a payment known as the ‘apprenticeship grant for employers of 16 to 24 year olds’ (AGE 16–24). This is a payment of £1,500 to small businesses that first hire apprentices aged 16–24. The payment is made if the employer has fewer than 50 employees, has not had an employee start an apprenticeship in the last 12 months and has not already claimed five of the grants. For more details on the subsidies of training costs of apprentices prior to May 2017, see J. Mirza-Davies, ‘Apprenticeships policy in England’, House of Commons Library, Briefing Paper 03052, November 2016, <http://researchbriefings.files.parliament.uk/documents/SN03052/SN03052.pdf>.

<sup>28</sup> See <http://www.employment-studies.co.uk/news/development-apprentice-wages-and-impact-new-apprentice-rate-national-minimum-wage>.

<sup>29</sup> Thirty-five hours’ work at the national living wage leads to gross earnings of £262.50 per week, although 35 hours’ work at the apprenticeship minimum wage is only £122.50 per week.



**Figure 8.6. Employer cost of employing example individuals at the applicable national minimum/living wage for 35 hours a week, excluding training costs, in 2017–18**



Note: Employer cost includes earnings, employer NICs, minimum employer contribution to workplace pensions (at long-run minimum of 3% of qualifying earnings) and the apprenticeship levy.

April 2015, the government has also waived employer NICs on all employees aged under 21, whether or not they are an apprentice. Therefore the employer NICs exemption for apprentices only reduces employer NICs payments for apprentices aged 21–24.

Combined, these two policies mean that hiring an apprentice (at least in terms of their weekly pay, including taxes and levies paid on it) can be considerably cheaper than employing a non-apprentice. The difference in employer cost for 35 hours' work between apprentices and non-apprentices at their relevant minimum wage is summarised in Figure 8.6. Employing an apprentice in their first year can be considerably cheaper than hiring a non-apprentice. In particular, for workers aged 21 and over, the cost at the applicable minimum wage can be under half that for a non-apprentice. For 16- to 18-year-olds, the difference in minimum employer cost is considerably smaller, but it remains after the first year of the apprenticeship. Of course, the full cost of employing an apprentice will also include any training cost (that is not paid for by the government), and in addition they will be able to spend fewer hours working directly for their employer each week as they undertake off-the-job training.

### The apprenticeship levy and the new funding system

The apprenticeship levy is being introduced in April 2017. It requires all employers with a paybill in excess of £3 million per year to pay a levy equal to 0.5% of the amount by which their paybill is in excess of this amount.<sup>30</sup> The £3 million threshold means that only 2% of employers will pay the levy, but, as we show in Section 8.4, these employers employ a

<sup>30</sup> The actual mechanics of this are that any employer with a paybill of over £3 million per year will pay a levy of 0.5% of the total value of their paybill, but will receive an allowance of £15,000 a year to offset against their levy payment.

significant portion of the UK workforce.<sup>31</sup> The apprenticeship levy is a payroll tax similar to employer NICs, although the amount that is levied is a function of the total payroll of employees within an organisation, rather than a function of each individual's earnings. The OBR forecasts that the apprenticeship levy will raise £2.6 billion in 2017–18, rising to £2.8 billion in 2019–20.<sup>32</sup>

All employers in England who pay the levy, including public sector employers, will have their levy payments put into a 'digital account', which they can then use to spend on the costs of off-the-job training of apprentices. This amount will be topped up a further 10% by the government. These funds will expire after 24 months if unspent, but barring this detail the 'digital account' essentially amounts to levy-paying employers being offered full government subsidy for apprenticeship training costs up to the value of 110% of each employer's levy amount.<sup>33</sup> Levy-paying employers who want to spend more on apprenticeship training than the amount in their digital account will have to pay 10% of costs above that amount themselves and the government will fund the remaining 90%. For all apprenticeships, there are maximum amounts above which the government will not make any contribution, as set out below.

Employers who do not pay the levy – i.e. those with a paybill of less than £3 million per year – will receive a 90% subsidy towards the training costs of apprentices. An exception is for employers with fewer than 50 employees employing apprentices aged 16–18: for them, the government will fund 100% of training costs (up to the limit specified below).

Government funding is restricted to a limit per apprentice. Each apprenticeship framework or standard will be assigned to one of 15 funding bands decided upon by the Skills Funding Agency, each with an upper limit of between £1,500 and £27,000 to cover the full duration of the apprenticeship. Allocation to a particular band is supposed to reflect the expected costs of training for each apprenticeship. For example, the band limit for an aerospace engineer (a Level 6 course, equivalent to an undergraduate degree) is £27,000, whilst that for an adult care worker (a Level 2 course, equivalent to five GCSEs graded A\*–C) is £3,000.<sup>34</sup> The government will not pay any subsidy on training costs in excess of the relevant band limit.<sup>35</sup> In addition to the subsidy of the off-the-job training costs as specified above, the government will give both employer and training provider a £1,000 grant for employing an apprentice aged 16–18.<sup>36</sup> The government will only fund the training costs for apprentices who are training at a higher qualification level than they currently possess. This means that, while graduates holding an undergraduate degree can be apprentices who receive public funding, they must be undertaking a Level 6 (equivalent to a masters degree) apprenticeship or higher.

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<sup>31</sup> It is not clear to what (if anything) this allowance is indexed. If it is fixed in nominal terms, or indexed to prices rather than earnings, all else equal, we would expect gradually greater numbers of employers paying the levy over time.

<sup>32</sup> Table 4.6 of Office for Budget Responsibility, *Economic and Fiscal Outlook: November 2016*, <http://budgetresponsibility.org.uk/efo/economic-and-fiscal-outlook-november-2016/>.

<sup>33</sup> Department for Education, *Apprenticeship Funding in England from May 2017*, October 2016, <https://www.gov.uk/government/publications/apprenticeship-funding-from-may-2017>.

<sup>34</sup> <https://www.gov.uk/government/publications/apprenticeship-funding-bands>.

<sup>35</sup> If an apprentice needs training in Level 2 English and/or maths, the government will pay £471 per qualification, in addition to the other training costs associated with the apprenticeship. These payments will not reduce the amount in an employer's digital account.

<sup>36</sup> It will also pay the grant for apprentices aged 19–24 if they have previously been in care.

This system renders the degree of hypothecation between apprenticeship levy payments and public subsidy towards apprenticeships relatively weak. Employers who do not pay the levy at all will still be eligible for a subsidy of 90% of the upper funding limit, while employers who do pay the levy will be subsidised either 100% or 90%, with the levy amount only providing the threshold for the slight drop in subsidy rate. As a result, the upper limits set by the Skills Funding Agency are of far greater importance for determining likely public subsidies for apprenticeships than the amounts raised by the levy.

Although the apprenticeship levy applies across the UK, the new system of apprenticeship funding is being introduced only in England. The amounts that the three devolved administrations will each receive from the apprenticeship levy have been set for the next three years by applying population shares to the OBR's March 2016 forecast of the amount raised by the apprenticeship levy (and these amounts are fixed irrespective of any difference between the levy forecast and actual levy revenues).<sup>37</sup> However, since skills policy is devolved, this funding is not ring-fenced for apprenticeships and the devolved administrations will simply receive this funding as part of their block grant.

None of the devolved administrations has plans to introduce a voucher system like the digital account system that will be instituted in England. The Scottish Government is the only one of the three that has proposed any changes to apprenticeship policy to accompany the introduction of the levy, and these changes are small. The most significant is that public sector employers in Scotland will become eligible for apprenticeship funding in the same way as private sector employers.<sup>38</sup>

### Regulatory framework

Given the near-zero marginal cost to employers of providing off-the-job training for apprentices under the new funding system, regulation of the quality of this training is particularly important. The government has therefore set out a whole new regulatory system to be overseen by the Skills Funding Agency and the newly-created Institute for Apprenticeships. The pathway of a new apprenticeship through the new regulatory framework, from development to end assessment, is as follows:

1. Any group of 10 or more employers can work to develop an apprenticeship 'standard' – the set of skills an apprentice is expected to possess by the end. They must also develop an accompanying plan for an end-point assessment of these skills.
2. The Institute for Apprenticeships (IfA) will have responsibility for either approving or rejecting this new standard and the accompanying end-point assessment plan.<sup>39</sup>

<sup>37</sup> Announced by HM Treasury on 14 November 2016 (<https://www.gov.uk/government/news/uk-government-agrees-apprenticeship-levy-funding-deal-with-devolved-administrations>).

<sup>38</sup> Announced by the Scottish Government on 15 December 2016 (<https://consult.scotland.gov.uk/employability-and-training/apprenticeship-levy/results/scottish-government-response-to-the-uk-government-apprenticeship-levy----.pdf>).

<sup>39</sup> Each new standard will be peer reviewed by a small number of experts. The IfA will itself have responsibility for setting the criteria by which it takes this decision. Further details on these criteria and on the Institute for Apprenticeships can be found at [https://consult.education.gov.uk/apprenticeships/government-s-draft-strategic-guidance-to-the-insti/supporting\\_documents/Governments%20Draft%20Strategic%20Guidance%20to%20the%20Institute%20of%20Apprenticeships%20%20201718.pdf](https://consult.education.gov.uk/apprenticeships/government-s-draft-strategic-guidance-to-the-insti/supporting_documents/Governments%20Draft%20Strategic%20Guidance%20to%20the%20Institute%20of%20Apprenticeships%20%20201718.pdf).

It will also be responsible for ensuring all end-point assessments are quality assured.

3. Once the standard and the assessment plan have been approved, the Skills Funding Agency (SFA) will confirm the funding band for the standard.<sup>40</sup>
4. Employers will then be able to start taking on apprentices on this standard.
5. In order to be eligible for the subsidy, they will need to choose a provider from the Register of Apprenticeship Training Providers (RoATP), which will be maintained by the SFA using the following criteria:
  - As before, training providers will have to submit to future inspections by the Office for Standards in Education, Children's Services and Skills (Ofsted). Any receiving a Grade 4 (inadequate) will be removed from the Register (which must be re-applied to annually). They will also have to provide additional evidence of financial fitness, capability and quality.
  - Employers can apply to join the Register as training providers and thus use government subsidy to pay themselves for providing training.
6. Employers will negotiate the price of training directly with training providers.<sup>41</sup>
7. Employers will choose an end-point assessor from the Register of Apprenticeship Assessment Organisations, the responsibility of the SFA. Employers cannot assess their own apprenticeships.

This new system creates a number of checks designed to ensure the quality of apprenticeships in the new system. The IfA is effectively responsible for the curriculum and assessment of apprenticeships, the SFA decides on the funding band and the registers of providers/assessors, and Ofsted will continue its role in assessing the quality of providers to help the SFA. However, it is far from clear whether this will be enough to ensure quality in the context of the intended rapid expansion of apprenticeships.

Although the IfA will use peer review by a small panel of experts to assess proposals for new standards, it is easy to see how it will be under considerable pressure to expand quickly the number of standards available, especially given that the government plans for all apprenticeship starts to be on standards by the end of the current parliament, 'with as much of this [migration] to take place by 2017/18 as possible'.<sup>42</sup>

The government has said that register reforms introduce 'higher quality requirements for providers'.<sup>43</sup> However, although all training providers will continue to be subject to Ofsted

<sup>40</sup> The SFA has published its methodology for allocating standards to funding bands, and the IfA will advise on any future changes to this. The methodology can be found in annex 1 of Department for Education, *Apprenticeship Funding in England from May 2017*, October 2016, <https://www.gov.uk/government/publications/apprenticeship-funding-from-may-2017>.

<sup>41</sup> Where they are themselves registered as training providers, they will have to submit evidence of the actual cost of the training they are providing, and that will be the amount subsidised (to the extent it is below the relevant band maximum).

<sup>42</sup> Paragraph 5.9 of HM Government, *English Apprenticeships: Our 2020 Vision*, December 2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482754/BIS-15-604-english-apprenticeships-our-2020-vision.pdf).

<sup>43</sup> Skills Funding Agency, 'Supporting quality and employer choice through a new Register of Apprenticeship Training Providers', [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/562465/Provider\\_register\\_policy\\_doc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/562465/Provider_register_policy_doc.pdf).

inspections, it is difficult to see how this regulation is significantly more stringent than before. Nevertheless, removing training providers who receive a Grade 4 (inadequate) from the Register is important, particularly in light of the possibility for employers to become training providers. The numbers of training providers involved may present a barrier to how frequent and effective Ofsted inspections will be – there are currently 3,878 approved training organisations on the Register of Training Organisations.<sup>44</sup> Not necessarily all of these will apply to the RoATP, but this is indicative of the scale of the task.

### Apprenticeship targets for public sector bodies

In addition to the new system, the government has set an apprenticeship target for every public sector body with at least 250 employees in England (in the Enterprise Act 2016). This target requires that the number of apprenticeship starts each year in these organisations be equal to 2.3% of their total headcount in England. The target has been calculated by planning for the public sector to deliver a share of the 3 million apprenticeship starts proportionate to the current share of public workers in the total workforce in England (16.2%) and is equivalent to 97,000 public sector starts annually.<sup>45</sup> Employers that do not meet the target must set out why it has not been met and how the employer proposes to meet it in the future, although no provision has been made for action to be taken if an employer continually fails to meet its target. Nevertheless, the public sector is essentially obligated to employ a large number of apprentices.

This will cover a very large proportion of the public sector in England. The government has published a list of 1,010 public sector employers in England that it considers, as of December 2015, are in scope for this target.<sup>46</sup> The list includes essentially all NHS trusts, central government departments, police forces, fire and rescue services, armed forces and almost all local government employers (district and county councils and unitary authorities) in England. It also includes a large number of non-departmental public bodies (including institutions as varied as the Environment Agency and the British Museum), and academy trusts which run schools.

This one-size-fits-all approach to all large public sector employers in England is clearly not a sensible way to encourage more apprenticeships or to help deliver efficient public services. We discuss the implications of these targets in more detail in the next section.

### Summary

The new apprenticeship levy and more generous set of subsidies for apprenticeships in England are aimed at increasing the number of apprenticeships and meeting a Conservative commitment at the last general election to deliver 3 million new apprenticeship starts between 2015 and 2020. In addition, the government has laid out a new regulatory framework to ensure the quality of new apprenticeships and set targets for public sector employers to help achieve the 3 million commitment.

<sup>44</sup> <https://www.gov.uk/government/publications/register-of-training-organisations>.

<sup>45</sup> BIS and Department for Education, *Apprenticeship Targets for Public Sector Bodies: Consultation*, January 2016, <https://www.gov.uk/government/consultations/public-sector-apprenticeship-targets>.

<sup>46</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/494498/public-sector-apprenticeship-targets-list-of-bodies.xlsx](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/494498/public-sector-apprenticeship-targets-list-of-bodies.xlsx).

## 8.4 Likely effects of the new system of apprenticeship funding

Having set out the key changes to the apprenticeship system in the previous section, we now analyse the potential effects and the merits of the changes in England. We first analyse the potential impact of the apprenticeship levy itself. Second, we analyse the incentives produced by, and the potential effects of, the expanded subsidies for apprenticeship training. Finally, we discuss the appropriateness of the targets for hiring apprentices for public sector employers.

### Effects of introducing an apprenticeship levy

The apprenticeship levy, set at 0.5% of an employer's annual paybill above £3 million, is a tax paid by employers on the earnings they pay their employees and is forecast by the OBR to raise £2.6 billion in 2017–18. However, standard economic theory suggests that whoever is legally obliged to pay the tax (on whom the 'statutory' burden falls) does not necessarily face the economic burden of the tax.<sup>47</sup> Therefore, the effects of this tax may not simply be to reduce firms' profits. At least in the long run, we would expect the burden of the tax – at least partially – to fall on employees, because the imposition of the tax lowers employers' demand for workers and therefore wages fall. Indeed, upon the announcement of the introduction of the apprenticeship levy, the OBR assumed that the 'majority of the incidence ... [would] fall on wages ... [implying] a cumulative reduction in average earnings of around 0.3 per cent by 2020–21'.<sup>48</sup> In addition, the apprenticeship levy increases the difference in the cost to the employer of providing remuneration in the form of wages or salaries, compared with employer pension contributions (which are exempt from employer NICs and the apprenticeship levy). This could lead to employers decreasing employees' wages and increasing employer pension contributions in exchange, as it is increasingly tax efficient to do so.

By increasing the cost of employing a worker, at the margin, the apprenticeship levy also disincentivises employing an additional worker, which could lead to reduced employment (hence the term 'jobs tax' used by the Conservative party to describe an economically similar proposed increase in employer NICs in the run-up to the 2010 general election).<sup>49</sup> To the extent that the immediate burden falls on firms by reducing their profits, the apprenticeship levy may also lead to reduced investment in either physical capital or the human capital of their workers (particularly if the funding for these investments is from retained profits in the organisation), which would again be likely to lead to lower wages – and possibly employment – in the long run.

What about the magnitude of these effects? In the 2015 Autumn Statement, the government stated that, based on HMRC analysis, 'less than 2% of employers will pay [the apprenticeship levy]'.<sup>50</sup> This makes the levy sound relatively insignificant, but of course these 2% of employers are by definition the largest employers: the 2% includes Tesco and

<sup>47</sup> See, for example, chapter 19 of J. Gruber, *Public Finance and Public Policy*, 5<sup>th</sup> edition, Macmillan, London, 2016.

<sup>48</sup> Page 47 of Office for Budget Responsibility, *Economic and Fiscal Outlook: November 2015*, <http://budgetresponsibility.org.uk/efo/economic-and-fiscal-outlook-november-2015/>.

<sup>49</sup> Because it is only levied on employees' payroll and not on payments to self-employed individuals, this also slightly increases the incentive for firms to contract work out to small employers and self-employed individuals, rather than employ workers directly. For more discussion of these incentives, see Chapter 7.

<sup>50</sup> Page 45 of HM Treasury, *Spending Review and Autumn Statement 2015*, <https://www.gov.uk/government/publications/spending-review-and-autumn-statement-2015-documents>.

**Table 8.1. Percentage of employees working for employers of different sizes, 2015**

	<b>&lt;50 employees</b>	<b>50–249 employees</b>	<b>250+ employees</b>	<b>% of employees with given characteristic</b>
<b>Sector</b>				
Private	29.3	16.6	54.1	76.8
Public	1.1	6.7	92.2	23.2
<b>Age</b>				
16–24	28.9	13.7	57.4	10.5
25–39	21.8	14.9	63.3	36.7
40–54	20.8	13.9	65.3	36.3
55+	25.2	14.3	60.6	16.5
<b>Sex</b>				
Female	21.4	13.0	65.7	49.9
Male	24.1	15.6	60.3	50.2
<b>Wage level</b>				
Lowest wage quartile	31.4	14.5	54.1	25.0
2 <sup>nd</sup> wage quartile	25.6	14.6	59.8	25.0
3 <sup>rd</sup> wage quartile	20.3	13.8	65.9	25.0
Top wage quartile	13.5	14.4	72.1	25.0
<b>All</b>	22.7	14.3	63.0	100.0

Source: Authors' calculations using the Annual Survey of Hours and Earnings 2015. Wage quartiles are calculated using hourly wages including overtime.

the 98% includes small plumbing businesses with a few employees. To get a sense of the scale of the economic effects, we need to account for this.

Unfortunately, it is difficult for analysts outside of government to exactly calculate what fraction of employees work for employers who will pay the apprenticeship levy. Instead, the analysis in Table 8.1 uses the Annual Survey of Hours and Earnings to describe the characteristics of people who are likely to work for employers who are affected by the apprenticeship levy. Although we cannot perfectly observe those individuals who work for affected employers, we have split the data into three groups based on employer size to generate a realistic proxy for whether their employers are affected: fewer than 50 employees (unlikely to pay the levy), 50–249 employees (might pay the levy) and at least 250 employees (very likely to pay the levy).<sup>51</sup>

<sup>51</sup> Almost all employees working for employers with 250 or more employees will be affected by the apprenticeship levy, as, in order for the employer to not pay the levy, the employees would have a mean salary of less than £12,000 per year. In contrast, employers with fewer than 50 employees are almost certainly



Table 8.1 shows that, overall, 63% of employees work for large employers with 250 or more employees who are very likely to be subject to the apprenticeship levy, while only 23% of employees work for small employers who are unlikely to be affected. There is great heterogeneity by different types of workers. Over 90% of public sector workers work for large employers, compared with 54% of private sector employees. A slightly higher proportion of female employees work for large organisations than do men, although this likely reflects the fact that women are more likely to work in the public sector. Moreover, although 72% of employees in the highest quartile (25%) of hourly wages work for large organisations, even for the lowest quarter of wage-earners the proportion is 54%. If the OBR is correct that the apprenticeship levy will reduce earnings growth, this shows that it is likely to affect a large number of relatively low-paid workers, as well as higher-paid workers. Unsurprisingly, it also affects workers of all ages, although slightly more likely to affect middle-aged workers than younger or older workers.

Table 8A.1 in the appendix shows how the apprenticeship levy will affect different industries because of differences in the size of employers in each industry. Apart from the chiefly public sector industries (education, health, and public administration & defence) the most affected industries are electricity, gas & waste (81% of employees work for large employers) and finance & insurance (79%). In comparison, only 30% of employees in construction and 27% in agriculture & mining work for large employers. The two largest private sector industries (retail & wholesale and manufacturing) have 63% and 50% of employees working for large organisations respectively.

This analysis shows that the majority of employees work for employers who will have to pay the apprenticeship levy. It will particularly affect the public sector, because most people working for the public sector work for large organisations. But it will also affect the employers of more than half of employees with relatively low wages and the employers of almost 60% of 16- to 24-year-olds.

The fact that the apprenticeship levy affects large employers and does not affect small employers means its introduction provides an incentive for organisations to split such that they do not have to pay the apprenticeship levy (or pay less in total). The ‘employment allowance’ introduced in 2014, which reduces employers’ employer NICs bill by £3,000 per employer, also incentivises firms to split.<sup>52</sup> Note also that, because the main rate of corporation tax has been reduced, from 28% in 2010–11 to 20% since 2015–16, the tax regime is being made more favourable, in relative terms, to firms with large profits but low paybills (and vice versa).

### Effect of the new system for funding apprenticeship training

As was set out in Section 8.3, the system for subsidising the training costs of apprentices in England is changing in 2017–18. As a result, the Department for Education’s budget on

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unaffected by the levy, as, to be affected, the employees would need a mean salary of over £60,000 per year, which is also unlikely in many firms. The middle group (those working for employers with 50–249 employees) are potentially affected, but it is less certain.

<sup>52</sup> In November 2016, the *Guardian* newspaper published its findings that temporary recruitment agencies were transferring workers’ contracts from one to many different small companies to take advantage of this. The government announced measures in the 2016 Autumn Statement (page 41) to try to restrict this form of tax avoidance. See <https://www.theguardian.com/uk-news/2016/nov/15/revealed-temp-agencies-avoidance-scheme-costs-taxpayers-hundreds-of-millions>.



English apprenticeships is increasing by only £640 million in cash terms between 2016–17 and 2019–20. However, this increase is equivalent to just 23% of the revenue that it is expecting to raise from the apprenticeship levy in 2019–20.<sup>53</sup>

In this subsection, we analyse the incentives provided by the new system of subsidies that is being introduced. Given that employers have no choice over the amount of levy they pay (conditional on paybill), the incentives provided by the system can be analysed independently of how it is funded. We examine the potential effects of the new system on incentives for employers to provide training, on the prices of apprenticeship training and on skills and productivity.

### Effect on incentives for employers to provide training

A key effect of increasing subsidies for the training of apprentices is that they reduce the marginal cost of providing off-the-job training as part of an apprenticeship, and thus make employing apprentices a more attractive proposition for employers. This effect will be particularly pronounced for employers and industries that already have established apprenticeship schemes, as they will not have to pay fixed start-up costs of organising apprenticeship training.

However, the changes in incentives to train more apprentices are not uniform. Under the current funding system, broadly speaking, 100% of training costs are subsidised for apprentices aged 16–18 and this will, for the most part, remain unchanged.<sup>54</sup> Thus we might not expect to see a significant increase in apprenticeship starts among this age group. However, the subsidies for those aged 19 and over will change quite drastically, rising from paying 40–50% of training costs to 90% or 100%. Thus the incentives for employers to hire apprentices aged 19 and over will increase quite substantially and we would expect to see more apprenticeship starts among this age group. It should be noted that this increased subsidy applies not only to those under 25 but also to those who are significantly older.

To the extent that employers do not increase the number of apprentices they employ, the increased subsidy represents simply a transfer to employers employing apprentices.<sup>55</sup> This is known as ‘deadweight’ and is something to be concerned about, since previous subsidies for employer-provided training in the UK – for example, Employer Training Pilots (forerunner to Train to Gain) – have been shown to be ineffective at increasing take-up of training.<sup>56</sup>

<sup>53</sup> Department for Education, ‘Information on apprenticeship levy: data broken down by size and sector and the total apprenticeship budget’, August 2016, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/545145/Apprenticeships\\_-\\_expected\\_levy\\_and\\_total\\_spend\\_-\\_Aug\\_2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/545145/Apprenticeships_-_expected_levy_and_total_spend_-_Aug_2016.pdf); table 4.6 of Office for Budget Responsibility, *Economic and Fiscal Outlook: November 2016*, <http://budgetresponsibility.org.uk/efo/economic-and-fiscal-outlook-november-2016/>.

<sup>54</sup> The two exceptions to this are that for employers with more than 50 employees who do not pay the apprenticeship levy (i.e. with a paybill below £3 million) and for employers who pay the apprenticeship levy but have already used all the funds in their digital account, the training subsidy will be 90%.

<sup>55</sup> Assessing the combined effect of the increased subsidy rates and the introduction of the apprenticeship levy, employers with a relatively low paybill, but who hire large numbers of apprentices, are likely to see a net transfer from the government, while employers with a large paybill and few apprentices will make a net transfer to the exchequer.

<sup>56</sup> L. Abramovsky, E. Battistin, E. Fitzsimons, A. Goodman and H. Simpson, ‘Providing employers with incentives to train low-skilled workers: evidence from the UK Employer Training Pilots’, *Journal of Labor Economics*, 2011, 29, 153–93.

However, it is likely that some of the increase in apprenticeship starts will not represent an increase in the training workers are receiving but instead a substitution of apprenticeship training for other types of training. There are three main ways that this might happen.

First, we may see some relabelling by employers of training schemes that already exist. Employers may decide to relabel existing training schemes that include off-the-job training as apprenticeships in order to benefit from the increased subsidies. There are some regulatory restrictions in place to limit this, but in practice if an employer is already providing off-the-job training similar to that specified by the requirements of an apprenticeship, then the costs associated with this relabelling are unlikely to be onerous. Relabelling is further facilitated by the provision for employers to become approved apprenticeship training providers. Previous research<sup>57</sup> suggests that there could be a significant amount of relabelling, which will result in government funds being used to subsidise some training that would have been provided anyway.

Second, the increased generosity of government subsidisation of off-the-job apprenticeship training will also prompt some employers to change how they train their workers – in particular, moving from unsubsidised on-the-job training to heavily-subsidised off-the-job training offered by apprenticeships. This could be damaging if there may be some practical skills that are best learned on the job but, because off-the-job training is so heavily subsidised, employers may choose to switch away from this on-the-job training.

Third, we may see some individuals switching from academic education to pursuing an apprenticeship. Greater government subsidies for training will allow employers to offer higher apprenticeship wages, and this may attract some individuals who would previously have opted for an academic route. Whether or not this should be seen as a positive change depends on whether the current balance between the number of apprenticeships being started and the numbers going into academic education is seen as the right one.

### Effect on the price of apprenticeship training

The new apprenticeship funding system will also have an effect on how apprenticeship training is priced. Due to the near complete subsidisation of training costs below the maximum of each band, there will be little scope for providers to compete on price – the price of training has little effect on the cost to the employer. Thus there will be little incentive for providers to price below a given band's maximum. On the other hand, employers will have to pay the full amount of costs above the band's maximum, so if providers can profitably operate at the band maximum it is likely that price competition will prevent them from charging much above that threshold. Thus we would expect to see a strong tendency for providers to price training courses at or close to the level of the relevant band maximum. This could be reinforced by the fear of training providers that pricing below the maximum would signal that a course is of lower quality. One related side effect of this likely bunching of providers at the band maxima is that it will make it difficult for employers to use price signals as a guide to quality.

There is one further dimension to pricing issues resulting from the new funding system. As employers will themselves be able to become approved training providers and thus

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<sup>57</sup> E. Leuven and H. Oosterbeek, 'Evaluating the effect of tax deductions on training', *Journal of Labor Economics*, 2004, 22, 461–88.

receive the government training subsidy, they will have little incentive to reduce the quoted 'price' for the training they provide. Whilst the regulation requires employer-providers to report to the Skills Funding Agency the full cost of training and assessment, including evidence on how costs are calculated, there is no (or very little) incentive for employer-providers to keep these costs below the relevant band maximum.

### Effect on skills and productivity of the workforce

Ultimately, the increased subsidies should lead to higher numbers of apprenticeships, and probably higher levels of workforce training. If the training is of high quality, this should lead to increases in workers' skills and productivity. More productive workers should be able to command higher wages, leading to higher earnings and incomes for these workers. To the extent that employers may be able to capture some of the gains in their workers' productivity, it could potentially lead to higher profits for firms, at least in the short run.

There are two key questions to understanding the effectiveness of the increased subsidies: 'What would individuals have done instead?' and 'What is the quality of the new training?'. Considering alternative options, if apprentices would have otherwise undertaken another similar training programme that the employer organised, the benefit of instead doing an apprenticeship may be very small or non-existent. If instead they would have done existing vocational qualifications in further education or sixth form colleges (e.g. Level 2 BTEC or NVQ qualifications – equivalent to GCSEs) – which have been found to have very low returns<sup>58</sup> – or undertaken no other training or education at all, then the gains from taking an apprenticeship may be high.

The second fundamental question is how and whether the government will ensure that the new apprenticeships and associated training courses are of sufficiently high quality that they are a useful investment. As argued in Section 8.3, the new regulatory regime has a lot of sensible features. However, expanding the number of apprenticeships at a rapid pace and into industries where they have rarely been used in the past is likely to pose significant challenges. The 3 million target is likely to create significant pressure on the new Institute for Apprenticeships to approve as many new standards as quickly as possible and the inspection of training providers is likely to represent a significant expansion in Ofsted's responsibilities with regards to training providers.

### Targets for apprentices employed by public sector employers

While the government will be incentivising private sector employers to employ apprentices by heavily subsidising their training costs, in the public sector there will be centrally-set targets for every public sector employer with at least 250 employees in England. There are a number of reasons to question the wisdom of these targets.

First, it is unclear that apprenticeships are the right option for increasing skills in the public sector. Apprenticeships are, in general, undertaken by individuals who have not already completed post-secondary education. In 2015–16, according to the Labour Force Survey, only 11% of apprentices had previously completed a degree or other higher education qualification. However, the public sector workforce is dominated by highly-educated employees: 63% of public sector workers had completed post-secondary education in 2015–16, compared with 38% in the private sector. The government set the

<sup>58</sup> See references in footnote 19.

public sector apprentice targets on the basis that 16.2% of workers are in the public sector – but only 10.4% of workers without post-secondary education are in that sector. If the government wanted to focus apprenticeship provision entirely on the group who have not completed higher education, then the target for the public sector apprentices would be lowered to 62,000 apprenticeship starts per year rather than 97,000.

As it stands, the current target implies a huge increase in the number of apprentices in the public sector. According to the LFS, only 0.6% of public sector workers report being an apprentice, implying that the public sector is being asked to approximately quadruple the number of apprentices it is employing. The scale of the target is also large when compared with the number of new hires by public sector employers each year. Only 11.7% of the public sector workforce has worked for the employer for less than a year. The target of apprenticeship starts equalling 2.3% of the workforce each year would, if these were to come entirely from new employees, imply that one-in-five new hires in the public sector must be an apprentice. If only newly-hired non-graduates were to start apprenticeships, then 62% of new non-graduate public sector employees would need to start one in order to meet the 2.3% target. In the short term, one alternative for public sector employers trying to meet this target would be for them to place existing employees on apprenticeship programmes. This would mean that fewer new hires would need to be apprentices to make the target. However, it is even less clear that apprenticeships are appropriate for experienced workers in the public sector.

In addition, so far we have discussed the public sector as though it were a single entity. In fact, public sector employers are varied in their size, the turnover of their staff and their ability to employ apprentices in a way that is useful to employer and individual. The great variation across public sector employers means that while some may not find it hard to employ enough apprentices to comply with the target, others will find it very hard indeed. Parts of the public sector that might particularly struggle are the ones that currently hire many staff who have already trained professionally (such as schools), whereas large organisations with lower-skilled intakes may find it easier (such as parts of public administration).

Given the scale of the target, meeting it will probably necessitate a large restructuring of employment for some public sector organisations. There is already emerging evidence of this occurring. The College of Policing has announced that, beyond 2020, entry to the police force will now be either through a ‘police constable apprenticeship’, a policing degree or a policing programme for graduates.<sup>59</sup> The Armed Forces have had an apprenticeship standard approved for the training of service personnel.<sup>60</sup> If public sector employers do indeed have to substantially reorganise the employment routes or training of their employees in response to the obligation, there are a number of significant negative implications of doing so. There will be significant administrative costs of restructuring training. In addition, many more individuals will have to undertake off-the-job training, which may or may not be less productive in developing their skills than the time they could have used learning on the job.

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<sup>59</sup> [http://www.college.police.uk/News/College-news/Pages/PEQF\\_media\\_launch\\_blog.aspx](http://www.college.police.uk/News/College-news/Pages/PEQF_media_launch_blog.aspx).

<sup>60</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/487589/HM\\_ARMED\\_FORCES\\_-\\_HM\\_Forces\\_Serviceperson\\_Public\\_Services\\_.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487589/HM_ARMED_FORCES_-_HM_Forces_Serviceperson_Public_Services_.pdf).

The target is not being implemented in order to improve the efficiency of the public sector or the quality of public services or even because it has been determined that this is the best way for public sector workers to develop their professional skills. Instead, the government is imposing a burdensome obligation on public sector employers with little or no justification for how this will benefit public services or the public sector workforce. Therefore, this policy risks creating a lot of pointless, and costly, relabelling of existing activities or – even worse – shifting structures towards less efficient ways of working.

## 8.5 Conclusion

Training matters. In some important respects, the UK workforce has lower levels of skills than is the case in a number of comparable countries. Encouraging widespread, high-quality apprenticeships is likely to form an important element of any training policy. The question this chapter has sought to answer is whether the new apprenticeship levy, the new system of subsidies for apprentices' training and the government's targets are the best way of achieving the desired outcome.

The levy itself will raise far more money than the additional resource planned to go into apprenticeship training. Most of the expected £2.8 billion revenue (in 2019–20) is not being used to increase spending on apprenticeships. As a payroll tax, it is likely to feed through into lower earnings.

The structure of the system creates some concerns. In particular, the fact that apprenticeship training will be free, or close to free, for employers creates risks for public money. There will be little or no incentive to keep costs below the maxima of centrally-imposed caps. There will be clear incentives to relabel training that is already happening as apprenticeship training. The government has created a substantial new regulatory regime to try to manage these risks, but the incentives are a fundamental part of the system.

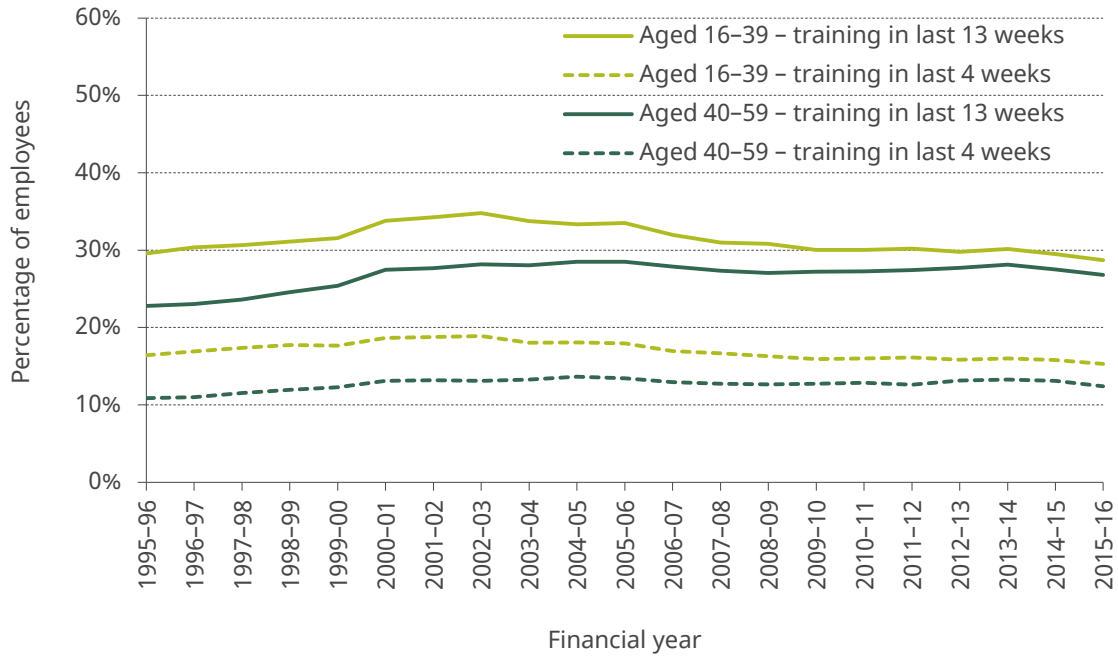
Additional concerns are created by a focus on achieving an arbitrary, and supposedly legally binding, target of achieving 3 million new apprenticeship starts from 2015 to 2020. Combining these targets with the system's incentives exacerbates the risks described above. The additional blanket target for all public sector employers with at least 250 staff in England to have 2.3% of their employees as apprentices makes little sense. It risks all sorts of inefficient behaviour.

Finally, it is frustrating that the strong arguments for increasing the number and quality of apprenticeships risk being undermined by the government's cavalier use of evidence in support of the policy. It is not the case that provision of training at work has collapsed in recent years, as implied by some government documents. It is also not the case that each £1 of government spending in this area will produce £26 of economic return as is claimed off the back of some flawed analysis. The case for intervention is strong enough without overstating it in this way.

We need to move away from arbitrary targets and across-the-board 100% funding to a more gradual expansion, a stronger focus on quality, and a policy designed to maximise impact rather than numbers.

## Appendix

**Figure 8A.1. Percentage of employees undertaking job-related training or education, by age, 1995-96 to 2015-16**



Source: Authors' calculations using Quarterly LFS, 1995 to 2015.

**Table 8A.1. Percentage of employees working for employers of different sizes, by industry, 2015**

Industry	Percentage of employees working with employer of each size			% of employees in each industry
	<50 employees	50–249 employees	250+ employees	
Agriculture & mining	55.0	18.1	27.0	0.7
Manufacturing	24.4	25.5	50.2	9.7
Electricity, gas & waste	10.4	8.6	81.1	1.2
Construction	52.6	17.2	30.2	3.6
Retail & wholesale	25.3	11.3	63.4	15.4
Transport & storage	15.8	11.0	73.3	4.3
Accommodation & food services	38.1	14.5	47.4	5.3
Information & communications	28.7	15.3	56.0	3.8
Finance & insurance	11.6	9.3	79.1	3.5
Real estate	33.8	17.1	49.1	1.4
Professional, scientific & technical	40.6	21.2	38.3	6.4
Administrative & support	22.2	15.5	62.4	7.0
Public administration & defence	1.6	1.6	96.9	4.5
Education	5.0	14.9	80.1	14.4
Health	17.7	11.0	71.3	15.0
Other	47.2	14.7	38.1	4.0

Source: Authors' calculations using the Annual Survey of Hours and Earnings 2015.