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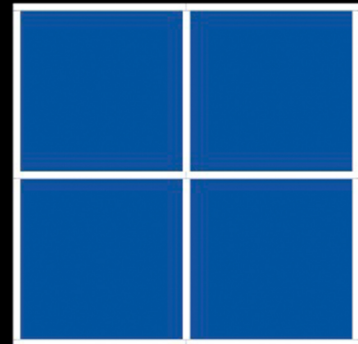
CENTRE FOR LEARNING AND
LIFE CHANCES IN KNOWLEDGE
ECONOMIES AND SOCIETIES



Higher Education, Initial Vocational Education and Training and Continuing Education and Training: Where Should the Balance Lie?

Geoff Mason

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Higher Education, Initial Vocational Education and Training and Continuing Education and Training: Where Should the Balance Lie?

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Abstract

This paper reviews evidence on two serious imbalances in the UK education and training system:

- 1. The heavy bias in public spending on initial education and training (for 18-24 year olds) towards higher education at the expense of further education and vocational education and training.*
- 2. The very weak government support for continuing education and training (for adults aged 25-plus) compared to that provided for initial education and training for new entrants to the workforce.*

The effects of these imbalances are compounded by a marked reluctance by many employers to invest in work-based training, especially long-duration apprenticeship training.

Taken together these shortcomings restrict development of intermediate skills and upgrading of adult workers' skills and thus contribute to poor productivity performance in many workplaces. They also reduce the wider social and economic benefits which arise from continuing adult learning, whether employment-related or community-related, and worsen social and inter-generational equity.

The first imbalance between initial higher education and initial further education and vocational education and training is now well understood and was recently the subject of a major government enquiry (Augar, 2019). However, the second imbalance between initial education and training and continuing education and training has received little attention from policy-makers.

In a concluding policy section, this paper discusses ways in which both major imbalances in public spending on education and training could be reduced by

- diversifying higher education entry routes away from the dominant model of 18 year olds entering full-time Bachelor degree courses, to be achieved in part by*
- shifting the weight of course fees away from intermediate-level vocational qualifications -- which overlap in part (at RQF Levels 4-5) with the first two years of Bachelor (First) degree level study -- and towards the later stages of Bachelor degree and Higher degree studies (Level 6 and above)*

- *ensuring free access to continuing education and training for learners of all ages, whether in employment or not*

Specifically, the paper questions current policy emphasis on attempting to encourage adult participation in intermediate-level vocational courses by extending student loan facilities available at Level 6 to Levels 4-5. It notes convincing evidence that adult learner loans at Levels 4-5 have failed to entice borrowers on anywhere near the scale of loans taken out by students enrolling directly for Level 6 qualifications. It therefore argues for tuition fees to be abolished for all FE courses up to Level 5 and for community learning courses and other courses which do not necessarily lead to formal qualifications.

This approach would aim to encourage:

- (1) more young people to study for intermediate-level vocational qualifications and then enter employment, while maintaining options for many of them to go on later to study for Bachelor degrees if the labour market incentives to do so remain strong*
- (2) more adults aged 25-plus, whether in or out of employment, to take up new learning opportunities in work-related and/or general interest areas.*

The paper then considers how well the Apprenticeship Levy system is working to stimulate increased employer spending on long-duration training for employees. It concludes that present concerns about the initial post-Levy drop in apprenticeship start numbers are misguided. Indeed, there is a very strong case for prioritising improvements in quality over quantity at this stage in the reform of apprenticeship training.

The reasons for this include pressing needs to reinvest in FE college resources after years of neglect and to build up the number of capable training providers and end-point assessment organisations within the apprenticeship system. Steps also need to be taken to reduce diversion of Apprenticeship Levy funds towards training for existing well-qualified employees at the expense of newly-recruited lower-qualified employees.

Finally, the paper considers options for short-duration continuing education and training for adults of all ages to be encouraged without undermining current efforts to reform and improve apprenticeship training.

1. Introduction ¹

Following the development of mass higher education in the UK over the last 30 years, public spending on initial education and training (for 18-24 year olds) is now heavily biased towards higher education at the expense of further education and vocational education and training (Wolf, 2015; Belfield et al, 2017, 2018; Britton et al, 2019).

This imbalance is widely criticised for a number of reasons, including social and inter-generational inequities (Henehan and Vignoles, 2018) and poor labour market prospects for a sizeable proportion of graduates (Chevalier and Lindley, 2009; Green and Zhu, 2010). There is also evidence of unmet employer demand for intermediate-level skills, many of which are better acquired through employment-based training rather than through full-time classroom study (Mason and Rincon-Aznar, 2015).

In response to such criticisms, recent governments have placed particular emphasis on apprenticeship training and prospective reforms to post-16 technical education. In addition, a recent government-commissioned review of post-18 education and funding put forward a number of proposals for strengthening technical education and reforming and refunding the further education college network (Augar, 2019). However, there is no shortage of evidence on the difficulties that confront policy-makers in meeting such objectives, for example, in achieving better quality standards in apprenticeship training (House of Commons Education Committee, 2018) and in reforming technical education (Henehan and Vignoles, 2018; CIPD, 2018a).

This paper assesses the imbalance between higher education (HE) and initial (post-18) vocational education and training (VET), with particular emphasis on the extent to which the current mix of HE and VET meets the skill needs of UK employers (Section 2) and the impact of recent trends in apprenticeship training on initial VET (Section 3).

¹ I am grateful to the Centre for Research on Learning and Life Chances (LLAKES), UCL Institute of Education, for support for this paper and to the Learning and Work Institute for granting access to data from the 2017 Adult Participation in Learning Survey. Particular thanks are due to Andy Green, Francis Green, Hugh Lauder, Paul Ryan, Tom Schuller, Lorna Unwin and Tom Wilson for helpful comments on previous versions of the paper. Responsibility for remaining errors is mine alone.

At the same time the paper draws attention to another striking imbalance in the UK education and training system which results from weak support (from both government and employers) for continuing education and training for adults (aged 25-plus). This second imbalance – between initial education and training and continuing education and training -- has significant implications, not just for social and inter-generational equity, but also for the development and updating of skills needed to help improve national productivity performance since adult workers constitute a large majority of people in employment. In addition, there are many social and economic benefits to be gained from continuing adult education even if it is not directly job-related (Section 4).

The paper concludes with a discussion of policy options which might help reduce both these serious imbalances in the education and training system (Section 5).

2. Higher education and initial vocational education and training

2.1 HE expansion relative to initial VET

Starting in the late 1980s, the UK's transition from elite HE to mass HE proceeded very quickly. Indeed, during a five-year period – 1988-93 -- the main measure of HE participation in use at the time doubled from 15% to 30% of the relevant age group.² In large part this reflected changes in funding arrangements which encouraged HE providers to expand student intakes (Bathmaker, 2003) and for which there proved to be pent-up demand from students. Other factors contributing to the rapid increase in HE participation at this time included the introduction of the GCSE (General Certificate of Secondary Education) in 1986 which contributed to an increase in measured attainments at age 16 (Blanden et al, 2003).³

Subsequently, further increases in the HE participation rate were driven by, among other things, the abolition of the binary divide between universities and the former polytechnics in 1992 and strong labour market incentives attached to Bachelor degree studies, particularly for women since returns to graduate-level qualifications for women compare particularly well to returns to qualifications held by non-graduate women in the UK (Walker and Zhu, 2005). By 2016-17 the likelihood of a young English-domiciled person in England participating in HE by age 30 was estimated at just under 50% (based on current participation rates), up from 42% in 2006-07.⁴

Growth in HE participation in recent decades has occurred in spite of the introduction of tuition fees for Bachelor degree courses in 1998 and their subsequent increase in stages to a maximum £9000 per year in 2012. This trend in HE participation rates reflects both

² Specifically, the Age Participation Index (API) covered HE in Great Britain and was defined as the number of home-domiciled initial entrants to full-time and sandwich undergraduate HE aged under 21, expressed as a percentage of the average number of 18 and 19 year olds in the population. Source for API data: derived from DfES Departmental reports and private communications from BIS and HEFCE.

³ Among other differences between GCSEs and the previous O level system, GCSEs introduced a shift away from wholly norm-referenced assessment towards a degree of criterion-referenced assessment and towards a combination of coursework assessment with final examination assessment (Blanden et al, 2003).

⁴ Source: DFE, Participation Rates In Higher Education: Academic Years 2006/2007 – 2016/2017 (Provisional), published 27 September 2018. This measure of the Higher Education Initial Participation Rate (HEIPR) in England was introduced in 2006-07 and covers 17 to 30 year old English-domiciled first-time participants in HE at UK HE Institutions, and at English, Welsh and Scottish Further Education Colleges.

high expected returns from HE studies and the availability of income-contingent loans for students to help them pay for tuition fees. The great majority of HE undergraduate enrolments (83% in 2017-18) were for Bachelor degree courses, up from 59% in 2008-09.⁵

By contrast with the rapid growth in Bachelor degree student numbers since the late 1980s, student enrolments on initial VET courses have largely declined over the same time period. At higher reaches of the VET system, equivalent to RQF Levels 4-5⁶, enrolments on technician-level courses (such as Foundation degrees and Higher National Certificates/Diplomas) have fallen sharply, since 2009 in the case of Foundation degrees and over a much longer time period in the case of Higher Nationals (Parry et al, 2017; Augar, 2019). At the same time government spending on Further Education (FE) colleges, which -- together with independent training providers – are responsible for VET courses at RQF Levels 1-3, has declined steadily relative to government spending on HE for the last 30 years (Henehan and Vignoles, 2018).⁷ This has contributed to severe financial strains for many FE colleges (NAO, 2015; Augar, 2019). This decline in FE spending also affects skills training and updating for adults aged 25-plus (discussed further in Section 4 below).

2.2 Trends in workforce qualifications

These trends in HE and FE participation and public spending are partly reflected in changes in the mix of qualifications held by UK workers (employed plus self-employed) over the last 20 years (Figure 1). The graduate share of 20-64 year olds in employment in 2018 was just under 37%, up from 16% in 1998. Over the same period the proportion defined as having low qualifications or no qualifications fell from 19% to 7%, partly reflecting the departure of many low-qualified persons from the workforce. In intermediate categories, small declines occurred in the proportions of workers holding

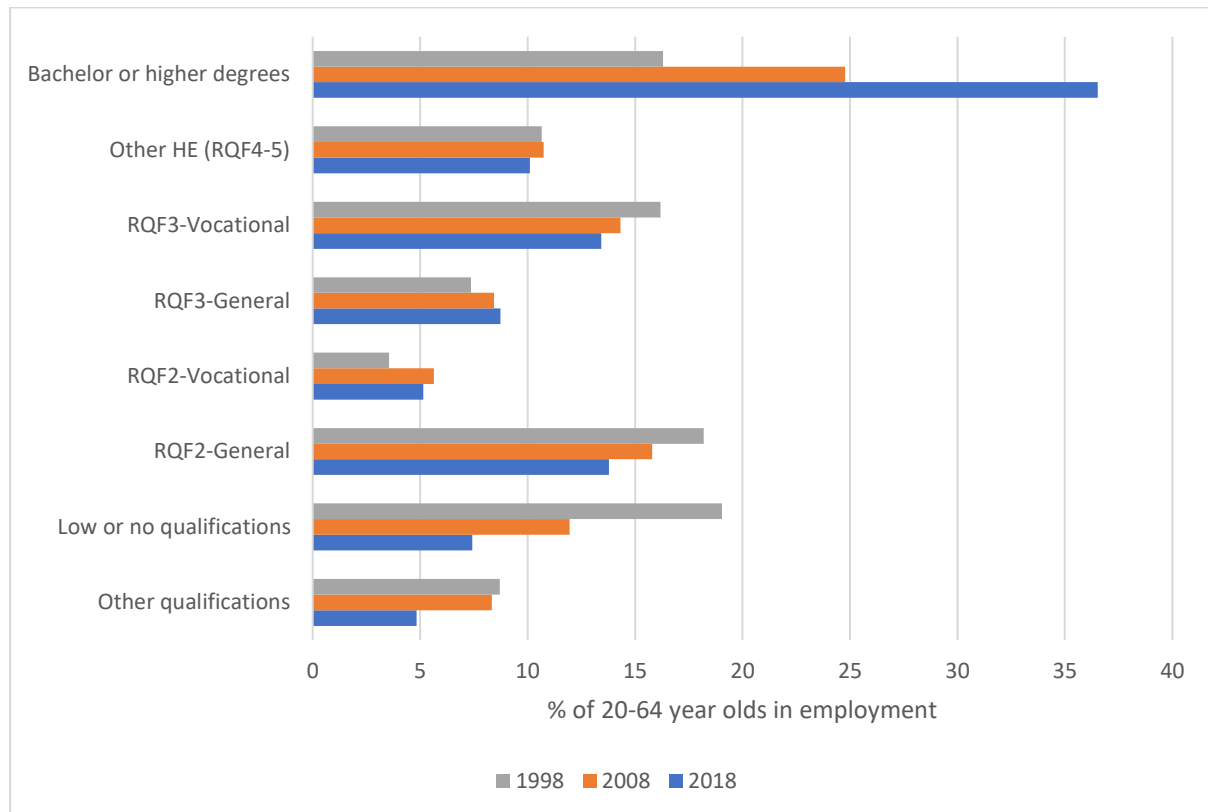
⁵ Source: <https://www.hesa.ac.uk/data-and-analysis/sb252/figure-1> [Accessed: 17.1.19]

⁶ ‘RQF’ here refers to the Regulated Qualifications Framework which was introduced in 2015, replacing the Qualifications and Credit Framework (QCF). The QCF in turn was introduced in 2011 to replace the National Vocational Qualifications (NVQ) framework which dated back to the 1980s.

⁷ See estimates of FE-HE differences in public spending per student between 1989-90 and 2019-20 in Henehan and Vignoles (2018, Figure 10) derived from analysis of data reported in Belfield et al (2017).

vocational qualifications at Levels 3-5 while the Level 2 vocational qualification share increased from a relatively low level.

Figure 1: Highest qualifications held by 20-64 year olds in employment, UK, 1998, 2008 and 2018, population-weighted estimates



Source: Labour Force Survey (Spring quarters)

Notes: RQF = Regulated Qualifications Framework; NVQ = National Vocational Qualifications.

Classification of qualifications

1. Bachelor (First) degrees or higher degrees (RQF Levels 6-8)

2. Other HE below Bachelor degree level (RQF Levels 4-5):

Foundation degrees, Higher National awards, sub-degree qualifications in teaching and nursing and equivalent awards; Diplomas in Higher Education and other higher education qualifications below Bachelor degree level.

3. RQF Level 3 – vocational:

BTEC National awards, City & Guilds advanced craft and craft awards, completed trade apprenticeships and equivalent awards; NVQ Level 3 or equivalent.

4. RQF Level 3 – general:

A level, A-S level, Scottish CSYS, Scottish Higher and equivalent awards; NVQ Level 3 or equivalent.

5. RQF Level 2 – vocational:

BTEC General and First awards; City & Guilds awards below craft level; SCOTVEC National Certificate modules; YT, YTP certificates; GNVQ Intermediate and Foundation awards; and equivalent awards; NVQ Level 2 or equivalent.

6. RQF Level 2 – general:

GCSE grade A-C, O level, CSE grade one and equivalent Scottish awards; NVQ Level 2 or equivalent.

In terms of international comparisons, the vocational qualification shares at Levels 2-3 are much lower than in Continental European countries such as Germany and France which place greater emphasis on intermediate skills development (Mason and Rincon-

Aznar, 2015). At Levels 4-5 Field (2018a) identifies a ‘missing middle’ in technical education in the UK compared to several other countries. By contrast, at Level 6 the UK graduate share now matches that in the US which embarked on mass HE much earlier than in the UK (Mason and Rincon-Aznar, 2015).

2.3 Graduate labour market outcomes

Throughout the period of expanding graduate supply, graduate-level qualifications in the UK have commanded relatively high average salary returns (McIntosh, 2006; Walker and Zhu, 2008; Blundell et al, 2016). This suggests continuing strong employer demand for high-level skills and knowledge which – in the UK and other industrial economies -- have played a key role in facilitating the effective take-up of new technologies (Bresnahan et al, 2002; Van Ark et al, 2008); attracting foreign direct investment by innovation-active firms (Barrell and Pain, 1997; Blomstrom and Kokko, 2003); and contributing to innovation and growth performance (Griffith et al, 2004; Vandenbussche et al, 2006). As a result of these and other mechanisms, high-level skills featured prominently in the sizeable skills contribution to UK productivity growth in the decade prior to the 2008-09 recession (Rincon-Aznar et al, 2015).

However, although average salary returns to graduate-level qualifications in the UK labour market have remained relatively high over a long period, there is a substantial dispersion around the average level, with poor returns closely associated with certain subjects of study and with attendance at less prestigious universities (Chevalier, 2011; Belfield et al, 2018). Furthermore, as graduates in the UK have moved in larger numbers into occupations which did not traditionally require university degrees as entry qualifications, other evidence has pointed to a widening of the dispersion of returns around the average level, with much lower earnings for the one third of graduates who can be classified as ‘overqualified’ for or ‘underemployed’ in the jobs they hold (Green and Zhu, 2010; Green and Henseke, 2016a).

These developments may partly reflect a reduction in some industries of the productivity benefits which were derived from increased graduate employment during the early phases of mass higher education. For example, in a study of high skills utilisation in the UK retailing, computer services and transport and communications industries carried out in

1999-2000, there was evidence of graduate substitution for non-graduates having contributed to job upgrading in two different ways during the previous decade:

(1) through a one-off permanent upgrading of clerical and administrative jobs in departments such as customer services and marketing; and (2) through temporary job upgrading as individual graduates in lower level jobs took on additional tasks and responsibilities in the hope of securing internal promotion or moving to better jobs with other employers. Overall, at that time there appeared to be limited scope for further job upgrading of a permanent kind to occur in response to continuing increases in graduate supply (Mason, 2002).

Other possible explanations for the apparent growth in the underemployed share of graduates in the UK may include labour market weakness since the 2008-09 recession and technological factors which affect all countries such as high-level skills not being needed for ICT utilisation as much as they were for ICT adoption (Chun, 2003). In addition, many developments in ICTs make them both easier to use and capable of de-skilling or displacing previously demanding graduate jobs (Beaudry et al, 2016).

The policy implications of graduate underemployment are contested. The Augar review (2019:10) infers a need to ‘encourage universities to bear down on low value degrees’, defined in terms of salary returns. However, some degree courses in areas such as nursing and education are associated with relatively low salary returns but are also widely recognised as producing socially valuable skills. Furthermore, wider social benefits of higher education such as improvements in health and civic participation may occur even in contexts where the graduates concerned are classified as underemployed (Green and Henseke, 2016b).

Hence, rather than emphasising limits on access to particular degree courses, policy in this area might do better to focus on better matching the skills acquired in post-18 education and training as a whole with the mix of skills sought by employers. For example, current employer reluctance to pay high salary premia for a sizeable proportion of UK graduates may also partly reflect the perceived lack of ‘employability skills’ among many graduates (see next section) and growing employer demand for intermediate skills developed through employment-based training (Section 2.5).

2.4 Graduate employability skills issues

From the perspective of employers, employability tends to refer to ‘work-readiness’, that is, possession of the skills, knowledge, attitudes and commercial understanding that will enable new graduates to make productive contributions to organisational objectives soon after commencing employment. In the UK a number of employers’ associations and higher education organisations have, over many years, urged universities to make more explicit efforts to develop the ‘key’, ‘core’, ‘transferable’ and/or ‘generic’ skills needed in many types of high-level employment (AGR, 1995; Universities UK, 2002; CBI/Universities UK, 2009; CBI 2010).

In response to such urgings, considerable resources have been devoted to various employability skills initiatives in UK higher education. Empirical evidence on the effectiveness of these initiatives suggests that university departments’ efforts to develop employability skills in classroom settings are far less likely to have positive effects on graduates’ employment prospects than is the case for structured work experience (Mason et al, 2009).

This finding serves as a reminder that many relevant employability skills are probably best learned in workplaces rather than through full-time education courses. In past decades many UK employers used to offer substantial work-based training programmes for new graduate recruits. However, two important implications of the current pressure for employability skills to be developed prior to taking up employment are that:

- (1) many employers place a high value on skills that are best learned in employment through workplace training and experience (discussed further in Section 2.5)
- (2) only a small proportion of these employers are willing to take responsibility for providing initial training of this kind (see Sections 3 and 4.3)

2.5 Employer demand for intermediate skills

Taken together, the evidence of relatively low earnings for a sizeable proportion of graduates, growth in underemployment of graduates and concerns about many graduates’ lack of skills which are best learned through employment-based training points to a

growing mismatch between the skills sought by employers and the current balance between HE and initial VET provision.

This is borne out by growing evidence in the last ten years of strong employer demand for intermediate skills such as those held by associate or ‘para’ professionals, technicians and skilled trades workers in industries such as health services, financial services, construction and some branches of advanced manufacturing such as aerospace and innovative areas of electronics and chemicals (FSSC, 2007; SEMTA 2009; Skills for Health, SEMTA and Cogent, 2010; Fuller et al, 2013; Lewis, 2014; Lewis and Gospel, 2015; CITB/Experian, 2017).⁸

In these and other industries such as mechanical engineering and vehicles, electricity, gas and water and telecommunication services, many employers were tempted by the growing availability of graduates over recent decades to recruit more graduates at the expense of employment-based intermediate skills training, especially long-duration apprenticeship training (Mason, 2012; Lewis, 2016).⁹ A clear incentive for this pattern of recruitment was that employers were not required to incur the costs of educating graduates, in contrast to the substantial costs of financing apprenticeship and other employment-based training. However, as ageing has occurred among workers with an apprenticeship or similar background, many firms and organisations have been left short of the practical skills and experience, problem-solving skills and commercial understanding which are best acquired through employment-based training (Fuller et al, 2015; Lewis, 2016).

As with high-skilled workers, the principal mechanisms by which intermediate-skilled workers can contribute to productivity centre on innovation and efficiency. For example, incremental innovations in products, services, processes and modes of work organisation rely heavily on workers in direct production, marketing, finance and human resources departments who have developed new ideas through learning-by-doing in the course of their work (Toner, 2010). Intermediate-skilled technicians also often play key support roles in new product design and development areas (Mason et al, 2019).

⁸ ‘Intermediate’ here refers to skills and qualifications which are below university graduate level but above the low-skilled category.

⁹ In this paper the term ‘long-duration training’ refers to training courses lasting for 12 months or more which focus on the development of new skills, not the certification of existing skills. As noted in Section 3.1, in many Continental European countries, the term ‘apprenticeship’ is only applied to much longer training courses, typically three years in duration.

In countries like Germany with well-established high-quality apprenticeship training systems, intermediate-skilled workers are well equipped to suggest ways in which efficiency (and hence productivity) can be improved. These contributions emerged with clarity in a series of comparisons of German and British sample of establishments in manufacturing and service industries in the 1980s and 90s (Prais, 1995). This research also highlighted the extent to which senior managers and professional staff in British establishments were caught up in dealing with daily problems ('fire-fighting') because of the relative absence of intermediate-skilled workers to deal with those problems, or prevent them happening in the first place (ibid).

What types of intermediate skills are most useful in enhancing efficiency and productivity? When employers in England were surveyed in 2013 and 2017 about the skills that most needed improving among their intermediate-level employees, their responses pointed to a wide range of technical, practical and job-specific skills and also a number of generic skills such as communication skills, problem solving skills, team-working skills and customer handling skills (Winterbotham et al, 2014, 2018).

Technical/practical skills and generic skills are often required in combination with each other (Dickerson and Green, 2004). Indeed, generic skills learned in classrooms only become economically productive to the extent that they can be applied in workplaces. For example, research on the use of quantitative skills in UK firms and organisations has shown that many jobs require only a 'simple' level of mathematics (in principle no higher than GCSE standard) but additional skills, knowledge and experience are usually required to apply this level of mathematics in the 'complex settings' of workplaces (Hodgen and Marks, 2013:7).

For this reason most assessments of different forms of VET suggest that, if classroom-based learning is to become useful, it needs to be reinforced by employment-based training in some way. International evidence reviewed by Eichhorst et al (2015) suggests that apprenticeship training – centred on employment-based training but combining it with part-time attendance in vocational education classes or workshops related to the field of training – is superior to purely school-based vocational education in terms of trainees' employment and salary prospects.

In the light of the evidence cited above on the deficiencies in public spending on VET relative to HE and the advantages of employment-based training, the UK government policy emphasis on apprenticeship training in recent years is welcome in principle. However, unfortunately, the quality of training delivered under the heading of ‘apprenticeships’ has proved to be highly variable in the UK institutional context.

3. Apprenticeship training in the UK: before and after the Apprenticeship Levy

3.1 Expansion of apprenticeships between 2006 and 2016

Following the collapse in manual apprenticeships in industries such as engineering and construction during the early 1980s recession, the total number of apprentices in employment in the UK fell from around 370,000 in 1979 to 180,000 in 1995 (Mirza-Davies, 2015). Serious government efforts to rebuild apprenticeship training began with the introduction of Modern Apprenticeships in 1994. Over the next ten years a distinction developed between Level 3 ('Advanced') apprenticeships and Level 2 ('Intermediate') apprenticeships. In 2004 the upper age limit of 25 was abolished (ibid).

Focussing on England, which accounts for a large majority (approximately 85%) of all apprenticeship starts in the UK¹⁰, there were about 184,000 apprenticeship starts in 2006-07, of which some 69% were at Level 2 (Figure 2A). A period of rapid expansion of apprenticeships then began such that, by 2015-16, total apprenticeship starts in England had risen to just over 509,000, with about 57% at Level 2, 37% at Level 3 and 6% at Level 4+ ('Higher' apprenticeships, first supported on any scale from 2010-11 onwards).

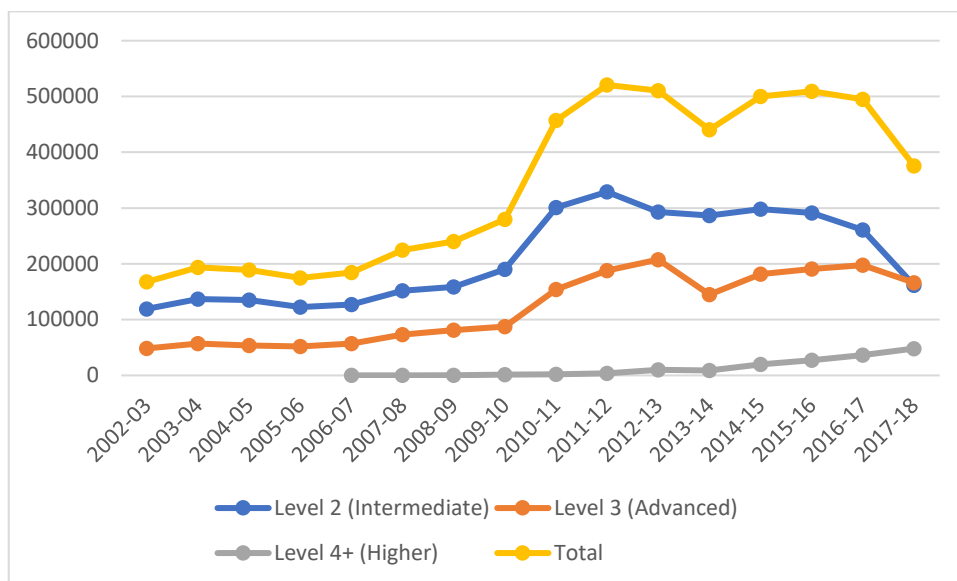
This very fast rate of growth raised considerable challenges in terms of oversight and management. Four distinctive features of the expansion were:

- (1) coverage of a much wider range of occupations and industries than had been the case in previous decades (such as the 1970s) when manual trade apprenticeships were predominant
- (2) the large proportion of adult trainees from 2010-11 onwards (with 44% aged 25-plus in 2015-16, up from 18% six years earlier) (Figure 2B)
- (3) the continued large proportion of trainees who were aiming for Level 2 qualifications rather than the Level 3 or higher qualifications which are typically associated with apprenticeship training in Continental Europe (Steedman, 2010)
- (4) very wide variation in quality between apprenticeships (Fuller and Unwin, 2017)

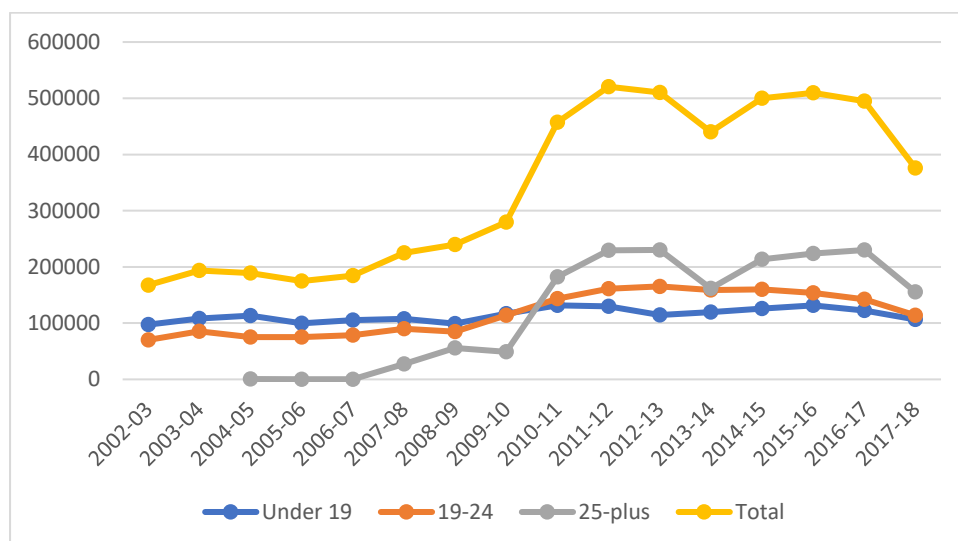
¹⁰ LLAKES estimate of English share of UK apprenticeships in 2009-10 (details of underlying data and sources available on request).

Figure 2: Apprenticeship starts, England, 2002-03 to 2017-18

A: Analysed by level



B: Analysed by age group



Sources:

Derived from:

<https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>;

<https://www.gov.uk/government/statistics/apprenticeship-and-levy-statistics-march-2018>;

<https://www.gov.uk/government/statistics/apprenticeship-and-levy-statistics-october-2018>.

[All accessed 31 October 2018]

<https://www.gov.uk/government/statistics/further-education-and-skills-november-2018>

[Accessed 2 August 2019]

Notes:

Academic years (August to July).

There is a small discontinuity between data for 2010-11 and data from 2011/12 onwards as a Single Individualised Learner Record (ILR) data collection system was introduced in 2011-12, thus eliminating some previous duplication of learners. For details see:

http://webarchive.nationalarchives.gov.uk/20140107201041/http://www.thedataservice.org.uk/NR/rdonlyres/C05DCDD5-67EE-4AD0-88B9-BEBC8F7F3300/0/SILR_Effects_SFR_Learners_June12.pdf [Accessed 31 October 2018]

In relation to the quality of apprenticeship training on offer, OFSTED (2015) praised the training (both at work and off-the-job) provided in industries with an established tradition of apprenticeships such as motor vehicles, engineering and construction. This report also cited examples of high-quality apprenticeships in other industries including accounting, finance and food processing. However, it expressed concern about weak provision in service industries such as customer service, retail, administration and social care where much of the expansion of apprenticeships had occurred. In particular, some training under the ‘apprenticeship’ heading for older workers in their existing jobs seemed to amount to little more than short-duration skills updating or accreditation of existing skills (OFSTED, 2015; Richard, 2012). One survey carried out for the Department for Education even found that fewer than half (45%) of Level 2 and 3 apprentices aged 25-plus actually knew that they were classified as apprentices (IFF Research, 2017a; see also Fuller et al, 2015).

In general, a sizeable proportion of training providers and employers working together seemed to have found ways to access public funds intended for apprenticeship training without necessarily adding to the skills possessed by trainees, let alone reaching the standards traditionally expected of apprentices. Fuller and Unwin (2017) concluded that the expansion of apprenticeships in the ten years to 2016 had focussed too much on boosting numbers rather than building on the expertise of better-quality training providers. The system was skewed towards Level 2 training with too little expectation of progression from Level 2 to Level 3. Many existing employees had been ‘converted’ into apprentices without any ‘robust procedure... to ensure [they were] improving their skills rather than just being accredited for their existing competence’ (ibid: p5).

Partly in response to these and other criticisms, the Apprenticeship Levy was introduced in April 2017, with considerable support from sections of employers who were already providing high-quality apprentice training or saw a levy as a potential catalyst for expanding apprenticeship training within their organisations (Gambin et al, 2016).

3.2 Initial impact of the Apprenticeship Levy

Under this Levy all UK employers with an annual pay bill in excess of £3m are required to pay amounts equating to 0.5% of their pay bill to HM Revenue and Customs (HMRC) each month. Prior expectations were that the Levy would be paid by about 19,000 firms and organisations, constituting 1.3% of employers who account for about 60% of all employees (DFE, 2016; Amin-Smith et al, 2017).

Levy funds are transferred by HMRC into employers' apprenticeship service accounts, together with a 10% top-up of these funds by government. Employers can then draw on these accounts by implementing apprentice training programmes which conform to new occupation-specific standards developed by employer groups or existing frameworks developed by sector bodies. The overall process of developing and approving standards is coordinated by the Institute for Apprenticeships and Technical Education (IfATE), a non-departmental public body which reports to the Department for Education (Powell, 2017).¹¹ All training providers must now be chosen from a new register of approved training organisations, including those Levy-paying employers who provide their own apprentice training.

In an effort to address some of the quality concerns identified in the 2006-16 period, training standards define key knowledge, skills and behaviours required for particular occupations, in contrast to the previous emphasis in training frameworks on supporting qualifications (NAO, 2019). There is a greater emphasis on end-point assessment procedures for training standards rather than on continuous assessment as in frameworks (ibid). In addition, funding rules relating to the requirement for apprentices to undergo off-the-job training for 20% of their employed time were tightened up in conjunction with the Levy's introduction (Field, 2018b).

Preliminary evidence points to a sizeable majority of employers involved with standards having positive views of those standards in principle (IFF Research, 2017b). However, the processes involved in developing many standards have proved to be slow and, in the first three quarters of 2018-19, almost 40% of apprenticeship starts were still being

¹¹ <https://www.instituteforapprenticeships.org/about/>

delivered under frameworks rather than standards.¹² There are also ongoing shortages of high-quality training providers and end-point skills assessment organisations for some standards (NAO, 2019; Augar, 2019).

Under the Levy system each apprenticeship standard or framework is allocated to one of 15 funding bands whose upper limits currently range from £1,500 to £27,000 per trainee. For each apprenticeship, Levy-paying employers can only use Levy account funds up to the relevant funding band's upper limit; costs above that limit have to be paid by employers. All unused Levy funds expire 24 months after they enter employers' apprenticeship service accounts (Powell, 2017).

By contrast, employers who are not eligible for the Levy pay 5% of the training and assessment costs for each apprenticeship that they support¹³, with the government contributing the remaining costs up to the upper limit of the relevant funding band.

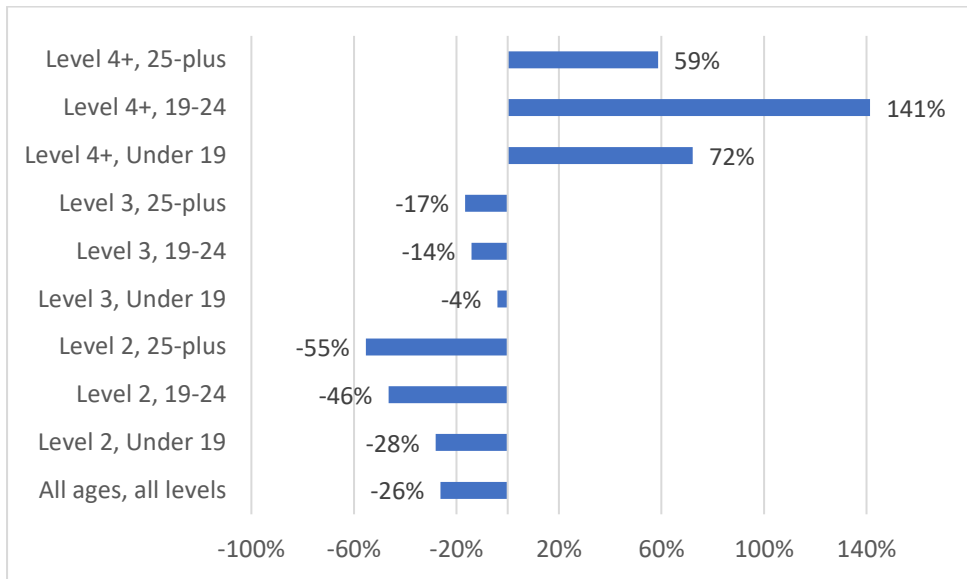
One clear initial impact of the Levy is a reduction in apprentice numbers. As shown in Figure 2A, total apprentice starts fell slightly in 2016-17, as the Levy was introduced in the last quarter of that academic year. Subsequently, data for the full year of 2017-18 show total apprentice starts down by 26% compared with 2015-16, the last full pre-Levy year. This decline was greatest among Level 2 starts (down 45% over the same two year period) and adult apprentices aged 25-plus (down 31%). But start numbers are also lower for Level 3 apprentices (down 13%) and for those in younger age groups (Figure 2B).

Figure 3 shows the patterns of change in apprentice starts between 2015-16 and 2017-18 in more detail. At Level 2 there were significant falls in starts among both 19-24 year olds and under-19s as well as in the 25-plus age group. At Level 3 the decline in 19-24 starts was much the same as for those aged 25-plus. By contrast, there was strong growth at Level 4+ (Higher apprenticeships), continuing a trend which began in 2013-14 (before the Levy), albeit from a very low base (see Figure 2B).

¹² Sources: <https://www.gov.uk/government/statistics/apprenticeship-and-levy-statistics-july-2019>; <https://www.gov.uk/government/statistics/further-education-and-skills-november-2018>

¹³ This employer contribution was reduced from 10% in April 2019.

Figure 3: Change in apprenticeship starts by level and age group, England, 2015-16 to 2017-18



Sources and notes: See Figure 2

In part, the overall reduction in apprentice numbers may reflect deterrence of some low-quality training providers. For example, some firms are unable or unwilling to comply with new funding rules relating to the requirement for apprentices to undergo off-the-job training for 20% of their employed time (Open University, 2018; Augar, 2019). However, it is also possible that apprentice training by small and medium-sized enterprises (SMEs), ineligible for the Levy, has fallen in part due to an effective drop in government subsidies for apprentice training for these firms, most of whom did not pay any fees to apprentice training providers prior to the Levy being introduced (CIPD, 2018b). Further research will be needed to explore these issues as more data become available.

Initial problems with key elements of the new system may also have contributed to the post-Levy decline in apprentice starts. Early assessments point to some confusion among employers about their eligibility for the Levy and about funding rates for different kinds of training. In addition, as noted above, delays have occurred in the design and approval of many training standards, particularly standards that are suitable for SMEs as well as larger firms (CIPD, 2018b, 2019; Open University, 2018).

The rate of decline in overall apprentice numbers may slow down as the new system becomes better established and more familiar to employers. Provisional data for the first

three quarters of 2018-19 show a 6% increase in total apprenticeship starts over the same quarters in 2017-18.¹⁴ However, given the many problems of poor-quality training provision under the heading of ‘apprenticeships’ in the 2006-16 period (Section 3.1), the widespread concerns about reduced apprentice numbers since the Levy’s introduction are perhaps misplaced.

Indeed, the House of Commons Education Committee (2018) report makes a strong case for prioritising improvements in quality over quantity at this stage in the reform of apprenticeship training. In particular, the Committee calls for stronger and more intensive monitoring of training providers (including subcontractors) and greater consistency and rigour in the monitoring of organisations responsible for end-point assessments of the skills learned by each apprentice. It also calls for much needed improvements in the scope for apprentice progression from Level 2 to Level 3.

Other concerns relate to the apparent proliferation of apprenticeship standards by comparison with some Continental European countries (Field, 2018b), suggesting that some standards in England may be overly narrow and not easily transferable between industries. Prominent counter-examples to this criticism include the standards developed for mechatronics technicians and IT infrastructure technicians which were jointly designed by employers in a wide range of industries.¹⁵ However, policy-makers need to take note of the general point about proliferation of standards. In addition, the removal of the requirement for all trainees to work towards specified vocational qualifications has been criticised by some analysts for potentially reducing the future labour market mobility of trainees who do not acquire such qualifications (Field, 2018b; CIPD, 2019).

3.3 Higher apprenticeships

The growth in Higher apprenticeships is potentially positive to the extent that it reflects employer willingness to commit new resources to employment-based training of

¹⁴ Source: <https://www.gov.uk/government/statistics/apprenticeship-and-levy-statistics-july-2019>. In more detail, Level 4+ apprenticeships rose by 61% in the first three quarters of 2018-19 compared to the same quarters in 2017-8; Level 3 apprenticeships increased by 5%; Level 2 apprenticeships fell by 10%.

¹⁵ <https://apprenticeships.blog.gov.uk/2017/10/02/its-not-just-about-cars-toyotas-trailblazer-andrew-parsons-talks-about-what-will-be-involved-in-the-new-standards/> ; <https://www.instituteforapprenticeships.org/apprenticeship-standards/infrastructure-technician/>

graduate- and technician-level employees, rather than expect them to have acquired employability skills through full-time classroom-based education. In principle, the growth in apprenticeship starts at this level could help to meet the longstanding high level of demand for Higher apprenticeships by well-qualified 18- and 19-year olds, many of whom express interest in apprenticeship training as an alternative to taking on a high level of debt to pay tuition fees in full-time HE.

Table 1 reports evidence on this latter point derived from a 2015 survey of school and FE college students in England who were studying toward HE entry-level qualifications such as A levels or Level 3 vocational qualifications. When asked about different alternatives to full-time HE study, some 43% of these students said they were ‘very interested’ or ‘quite interested’ in the option of apprenticeship training. This rose to 56% if apprenticeship training was combined with some later prospect of going on to HE study. In general, the level of interest in these apprenticeship options was greater, the more debt averse that students were assessed as being.¹⁶

Table 1: School and FE college student responses in 2015 to question: After completing your studies this year, how interested would you be in these options, instead of going to university? (population-weighted)

	Very interested	Quite interested	Not very interested	Not at all interested	TOTAL		
	<i>% of respondents (population-weighted)</i>						<i>n =</i>
Start in a job even if not much formal training will be provided	5	22	43	30	100		1396
Start in a job as long as formal training will be provided	17	44	26	13	100		1399
Start an apprenticeship	12	31	35	23	100		1391
Start an apprenticeship as long as it looks likely to provide an opportunity to go on to higher education later	18	38	29	16	100		1376

Source: Further analysis of 2015 Student Survey dataset described in Callender and Mason (2017).

However, it is questionable how much of this latent student interest in Higher apprenticeship training as an alternative to full-time university study is being met by

¹⁶ Being ‘very interested’ in starting an apprenticeship was positively correlated with a measure of debt averse attitudes held by the students concerned ($r = 0.060$; $p = 0.025$). See Callender and Mason (2017) for details of how the measure of debt averse attitudes was constructed.

employers. CIPD (2018b, 2019) reports survey evidence of many Levy-paying firms expecting to ‘rebadge’ existing training activity (including training for graduate recruits) as Higher apprenticeship training, in some cases using Levy funding to pay for management and/or leadership training (including MBA courses). Similarly, the National Audit Office appraisal of the apprenticeships programme cited examples of graduate training schemes in accountancy and advanced management courses being replaced with apprenticeships (NAO, 2019). Further research is needed to investigate the full extent of rebadging of this kind.

Any such developments are not surprising since it is well known that, in a wide range of countries and industries, firms tend to provide more training (especially off-the-job training) for employees who are already well-qualified than for lower-qualified employees (Lynch, 1992; Ariga and Brunello, 2006; Bassanini et al, 2007). A big question for UK policy-makers is what, if anything, can be done to reduce this tendency, for example, in terms of increasing the supply of Higher apprenticeship places to students who might otherwise see little alternative but to study full-time in higher education (incurring high levels of debt in the process). This issue is of particular importance for socially disadvantaged students.¹⁷

Given the high employer demand for technician-level skills and employability skills described in Section 2.5, it would also be desirable to find ways within the new Levy system of incentivising employers to offer Higher apprenticeships which included part-time study for Foundation degrees or Higher National Diplomas/Certificates with the expectation that, following completion of their training, trainees work at technician level for an agreed number of years in return for future employer support with HE tuition fees. This point is considered further in Section 5 below.

3.4 Apprenticeship training and business strategies

The relatively high proportion of apprentice starts at Level 2 (Figure 2A) may partly reflect the business strategies deployed by many British firms which do not seek to

¹⁷ See for example, ‘Apprenticeship system failing the disadvantaged, say MPs’, <https://www.ft.com/content/d533c714-7bb9-11e9-81d2-f785092ab560>

specialise in high skill, high value added product areas or to organise their workplaces in skill-intensive ways. For example, consider the UK retail industry which saw rapid growth in apprenticeships during the 2006-16 expansion, with most trainees aiming for Level 2 qualifications.¹⁸ This contrasts with the German retail industry which has one of the highest shares of apprentice-trained workers (equivalent to UK Level 3) in the whole German economy, something which may appear surprising to British retailers who tend to rely on relatively short company-specific training programmes (Mason and Osborne, 2008; Lewis et al, 2008).

The main reasons for this disparity emerge from comparisons of work organisation and skills utilisation in the two industries. In Germany sales assistants are typically responsible for the whole distributive process, including ordering, merchandising and advising customers and they do not receive daily instructions from superiors (Voss-Dahm, 2008). By contrast, in UK retail firms, work for sales assistants is typically divided up into bounded tasks which are relatively easy to carry out. Sales staff have limited autonomy and tend to follow day-to-day instructions by managers (Mason and Osborne, 2008).

Partly as a result of product and work organisation strategies of this kind, there is pressure from some employers for firms to have access to Levy funding to finance training which is shorter in duration than apprenticeship training (CIPD, 2018b, 2019; Open University, 2018). However, for all the difficulties being encountered by the Apprenticeship Levy system, the current reforms to apprentice training represent the biggest opportunity in decades to improve the quality of long-duration intermediate skills training in the UK. This objective could be jeopardised by extending the Levy system to include short-duration training for existing employees. Therefore, in Section 5 below, we consider alternative means of encouraging short-duration skills improvement and updating training which would not risk diluting current provision of apprenticeship training. A key reason for considering short-duration adult skills training is to address the second main imbalance in the UK education and training system, namely, the imbalance between initial education and training for school- and college-leavers and continuing education and training for adults.

¹⁸ Sources as for Figure 2.

4. Continuing education and training

4.1 Trends in adult FE and part-time HE

The priority given to full-time HE and to apprenticeship training (of varying quality) in recent decades has contributed to a long decline in public spending on continuing education and training and to reduced adult participation in areas such as skills training and updating, community learning and part-time HE study. ‘Community learning’ here refers to continuing education and training which is not specifically related to employment but confers many benefits on individuals and society, for example, in health, social well-being and crime reduction (Schuller et al, 2004; Schuller and Watson, 2009; WEA, 2017).

As noted in Section 2.1, government spending on FE has declined steadily relative to spending on HE for the last 30 years. Within the FE budget for England, recent increases in spending on adult apprenticeships coincided with sharp reductions in spending in non-apprentice adult skills training and with smaller reductions in the already low levels of spending allocated to community learning and offender learning (Table 2).

Overall, total learners aged 19-plus on adult FE and skills training programmes in England fell from some 3.16 million to 2.18 million (-31%) between 2010-11 and 2017-18.¹⁹ Over the same period total learners in community learning dropped from 676,000 to 502,000 (-26%), including courses in personal and community development, neighbourhood learning in deprived communities, family English, maths and language and wider family learning.²⁰

Over a similar period, increases in HE tuition fees contributed to a decline in part-time study for HE qualifications by mature students. Between 2010-15, part-time enrolments by England-domiciled persons on undergraduate HE courses in UK universities and English FE colleges fell by 51% and have continued to fall since (Callender and Thompson, 2018). Much of this decline occurred among students aged over 35 and among

¹⁹ Source: <https://www.gov.uk/government/statistics/further-education-and-skills-march-2019>

²⁰ Source: <https://www.gov.uk/government/statistical-data-sets/fe-data-library-community-learning> [Accessed: 20 August 2019]

students enrolling for undergraduate courses below Bachelor degree level, that is, typically vocational courses at upper intermediate level (ibid).

In part, these developments reflect fear of overindebtedness among prospective mature students who typically already have substantial financial commitments (Ellison et al, 2015). Another contributing factor to the decline in part-time HE study by mature students may be reduced employer support for employees wishing to study part-time for HE qualifications in the wake of increases in tuition fees (Mason, 2014).

Table 2: Adult FE teaching and learning expenditure, England, 2010-11 to 2015-16 (£ billion, 2015-16 prices; refers to learners aged 19-plus)

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		% change 2010-11 to 2015-16
Adult skills budget	3.16	2.84	2.71	2.52	2.31	1.88		-41
<i>of which:</i>								
Adult apprenticeships	0.48	0.66	0.78	0.77	0.78	0.71		48
Adult skills training, excluding apprenticeships	2.67	2.18	1.93	1.74	1.53	1.14		-57
<i>of which:</i>								
Classroom-based	1.85	1.61	1.62	1.59	1.43			
Other workplace training	0.80	0.56	0.31	0.15	0.09			
Other programmes	0.03	0.02	0.01	0.01				
Community learning	0.22	0.22	0.22	0.21	0.21	0.21		-5
Offender learning	0.16	0.16	0.15	0.15	0.13	0.14		-13
European Social Fund programmes	0.34	0.12	0.15	0.16	0.25	0.20		-41
Total Teaching and Learning	3.88	3.35	3.24	3.04	2.95	2.48		-36

Source: Derived from Foster (2018), Table 3: Skills Funding Agency, Annual Report and Accounts, various years

Note: Sub-totals may not add to totals due to rounding

4.2 Current adult learners – main characteristics

In order to consider how continuing education and training for adults may be revived and extended, it is useful to assess the motivations, backgrounds, modes of study and other characteristics of current adult learners. Accordingly, Appendix A to this paper reports a detailed analysis of the 2017 Adult Participation in Learning Survey (APLS), carried out

by the Learning and Work Institute, which covered 5169 persons aged 17-plus in Great Britain. This survey adopted a broad definition of learning designed to cover both formal and informal modes of learning, including independent learning which did not necessarily involve any contact with particular teachers or institutions.

Using this definition of learning, some 14% of adults aged 25-plus reported that they were currently doing some learning, with the proportion so reporting ranging from 6% of those aged 75-plus to 19% of those aged 35-44. A further 17% of adults aged 25-plus reported engaging in some form of learning activity in the previous three years (Table A1).

About a third of adult learners said that they were solely motivated by work and/or career reasons such as to improve their skills, pay, career prospects, job security or job satisfaction. Another third said that work-related motivations were reinforced by leisure-related and personal ambitions such as to develop themselves as persons, to improve in self-confidence, gain pleasure and interest from learning, to meet people and to support their children's schooling. The remaining third citing only leisure/personal reasons for learning were dominated by adults aged 65-plus (Table A3, Part B).

In line with much previous analysis of APLS data (for example, White 2012; Egglestone et al, 2018), adult learning participation rates were found to be significantly positively correlated with previous levels of attainment in formal education. For example, Bachelor degree holders were much more likely than lower-qualified persons to be engaging in further learning, even after taking account of variations in age, gender, ethnicity, disability, labour market participation, social class and diverse household characteristics (Table A4). This partly reflects the inequality identified in workplaces (Section 3.2) of employers tending to provide more education and training for employees who are already well-qualified than for lower-qualified employees. But it also reflects reasons such as a lack of time, interest or confidence to take part in learning activities expressed by non-learners who tend to be poorly-qualified (Table A9).

When asked about how they did their main learning (with multiple responses permitted), adult learners aged 25-plus highlight three main modes or locations of learning in particular: job-related (41% of learners), higher education (29%) and independent means of study (27%) (Table A5, Part A). By contrast, only small proportions of learners report any contact with further education colleges (7%), local schools and other community

organisations (9%) and local adult education centres and related organisations (6%). This is consistent with the diminished role of further and community education relative to higher education in recent years. Further analysis suggests that, when adult learners do make use of further education colleges and other local organisations, they are frequently motivated by ambitions for higher education, for example, on Access to Higher Education diploma courses which are mostly offered by further education colleges (OfS, 2019).

In the 25-64 age-groups where most adult learners are employed or seeking employment, the main subject areas of study are health and science (including medicine, nursing, first aid), digital\computer skills\information technology (IT), business and administrative and childcare and education (Table A6). Among learners aged 65-plus, computer and IT skills also feature prominently but are outweighed by creative and design subjects such as art, crafts, photography, music and floristry.

Across all adult learners aged 25-plus, some 36% reported that their employers paid their course fees while 6% said that their learning took the form of internal employer-provided training (Table A8). Some 28% said they paid course fees directly themselves while another 18% said there were no fees to be paid. Across all age groups the take-up of formal loans to pay for course fees was relatively low, ranging from 11% of adult learners aged 25-34 to 3% of those aged 35-44, 4% of those aged 45-54 and 1% of those aged 55 or older.

When adult *non*-learners are asked about the barriers to them participating in learning, cost and money considerations tend to rank below other factors such as work and time pressures, lack of confidence and lack of interest in learning (Table A9). Similarly, only a small proportion of adult non-learners (12%) say that they could be encouraged to engage in learning activity in the future by lower course fees or greater willingness by employers to pay all or some of their course fees (Table A10, Part B). A larger proportion of non-learners (26%) mentioned greater flexibility and convenience of course timing and location as making it more likely that they would take up learning. However, it is notable that half of non-learners offered no suggestions at all regarding possible incentives to engage in learning.

This last finding serves as a reminder of the sizeable proportion of the adult population who are ‘hard to reach’ in terms of continuing education, whether because of lack of time, interest or self-confidence or some combination of all three. This problem has been frequently observed throughout the long history of the British adult education movement dating back to the early 19th century (Harrison, 1961; Kelly, 1970). However, the APLS evidence still shows potential for the proportion of adult learners to be increased well beyond the levels observed in recent years.

4.3 Trends in employer-provided training for adult workers

In addition to recent declines in adult participation in publicly-funded education and training, evidence has accumulated of declining provision of employer-provided training for adult workers. For adults as a whole, this is not so much due to lower rates of participation in job-related training as it is to shorter average durations of such training, with more training episodes lasting less than one week and less training taking place off-the-job. The volume of training per worker is estimated to have fallen by about 50% between 1997-2012, with the largest reduction experienced by adult workers below the age of 30 (Green et al, 2016).

However, in the case of younger adult workers, participation rates appear to be falling at the same time as the average duration of training episodes is declining. Analysing Labour Force Survey data, Henehan and Vignoles (2018) find that the proportion of employees receiving job-related training at a given age has steadily declined over time for different cohorts of workers born between 1961 and 1990; the same applies to the average duration of such training experienced by each cohort. Although the proportion of young adults aged 25-34 working in lower-skilled occupations is now greater than for previous cohorts with the same level of qualifications, the cohort-on-cohort decline in volume of training per worker for this age group appears to derive from employer behaviour rather than changes in occupational structure (ibid).

Green et al (2016) assess several competing explanations for any such changes in employer behaviour: growing pessimism among managers about the value of training for their businesses; prior education substituting for current training; more efficient training

practices; and more learning through team-working and other high-involvement work practices. On the basis of existing evidence, they are unable to reach a firm conclusion.

In general, the overall decline in volume of employer-provided training per worker is hard to reconcile with survey evidence on firms' requirements for improvement and updating of their adult workers' skills. For example, in the 2017 Employer Skills Survey (ESS), nearly two thirds (63%) of UK establishments reported that some of their employees needed to acquire new skills or knowledge over the next 12 months. This was a much more common problem than skills-related recruitment difficulties (reported by 6% of UK establishments).²¹ These skill updating and improvement needs derived from factors such as the introduction of new goods or services, new work practices, new technologies and new legislative or regulatory requirements (Winterbotham et al, 2018).

These skill updating needs were reported across a wide range of occupations but applied particularly to managers, professionals, personal service workers and skilled trades workers. Across all occupations the main types of skill in need of improvement included technical and practical skills, IT skills, problem-solving skills, management and leadership skills and customer handling skills (ibid).

Previous analysis of ESS data (for 2009) suggests that the reported presence of skill updating needs in establishments is positively related to an index of product strategy derived from measures of dependence on price in order to achieve competitive success, involvement in 'premium quality' production as compared to 'standard or basic quality' production and innovation leadership. This product strategy index tends to increase with establishment size and (among private sector firms) with the extent to which establishments operate in national or international markets rather than confining themselves to regional or local markets (Mason, 2011).

The positive correlation between reported skill updating needs and the product strategy index suggests that establishments with relatively 'high-end' product strategies are less

²¹ Questions about upskilling needs are asked every four years in the Employer Skills Survey. The pattern of responses to these questions in 2017 was much the same as four years earlier. In 2013 some 72% of UK establishments reported that some of their employees needed to acquire new skills or knowledge, compared with 4% reporting skills-related recruitment difficulties (Winterbotham et al, 2018).

likely to be satisfied with their existing skill levels than are establishments in the same industry with middle-ranking and low-end product strategies. Hence, it is no surprise that skill updating needs were also found to be positively related to training provision in 2009 (ibid).

A similar correlation was found in the 2017 ESS although the correspondence is far from exact, partly because the training measure is backward-looking whereas the skill updating measure is forward-looking. As shown in Table 3, some three quarters of establishments anticipating future upskilling needs had provided training in the previous 12 months. Conversely, less than half (47%) of establishments who did not identify any upskilling needs were offering any kind of training. Overall, two thirds of establishments provided some training but about one in three of those spent more than 50% of training time on health and safety and/or induction training (Table 4), thus not contributing greatly to the improvement of existing workers' skills.

How do ESS-based findings relate to the downward trend in employer-provided training described above? Between 2005-11 employers' constant-price training expenditure per employee fell by just over 14%, according to ESS-based estimates (Green et al, 2016, Table 1). Post-2011 there were more fluctuations in the ESS data but training volumes and expenditure per employee were still lower in 2017 than in 2011 (Winterbotham et al, 2018, Section 5).

Overall, the most consistent pattern in training activity over time identified by the ESS has been the great variation between establishments in terms of their ability to recognise future upskilling needs (partly related to variation in product strategies) and in their willingness and/or capability to respond to future skill needs by implementing appropriate training. At the high end of the product strategy spectrum, establishments seek to provide whatever skills are needed for their firms to lead on innovation and succeed in competitive markets. But for many other establishments, adult workers' skill updating and improvement needs are only being met in a very partial and uneven way.

Table 3: Establishments reporting training funded or arranged for staff over past 12 months, analysed by reported skill updating needs in next 12 months, UK, 2017 (population-weighted)

	Upskilling needed	No upskilling needed	Total
	<i>% of establishments which were asked about skill updating needs</i>		
Training	75	47	65
No training	25	53	35
Total	100	100	100
		Weighted n =	1895140
		Unweighted n =	43437

Source: Employer Skills Survey 2017: UK data tables,
<https://www.gov.uk/government/publications/employer-skills-survey-2017-uk-report>

Table 4: Training provision in previous 12 months, taking account of percentage of training devoted to health and safety or induction training, UK, 2017 (population-weighted)

	<i>% of total establishments</i>
Nature of training provision:	
Off-job and on-job training, <50% health, safety or induction	23
Off-job training only, <50% health, safety or induction	8
On-job training only, <50% health, safety or induction	11
Off-job and on-job training, 50% or more health, safety or induction	12
Off-job training only, 50% or more health, safety or induction	4
On-job training only, 50% or more health, safety or induction	7
Do not train	35
TOTAL	100
	<i>Weighted n =</i>
	87430
	<i>Unweighted n =</i>
	1895140

Source: See Table 3

Since adult workers constitute a much larger proportion of the workforce than new entrants to employment, investment in continuing education and training for existing employees is likely to have a stronger and more immediate effect on productivity performance than is investment in initial education and training for new entrants to the workforce. This applies to uncertified skills gained by adult workers as well as those associated with formal qualifications. For example, Mason et al (2012) find a stronger role for human capital in explaining productivity differences at country-industry level when taking uncertified skills into account than when human capital is proxied by formal qualifications alone.

In many cases the type of skills updating training that is required is relatively short in duration compared to apprenticeship training. Hence, it is not surprising that several employers (and their representative organisations) have criticised the Apprenticeship Levy for not providing any support or encouragement for short-duration continuing training for adult workers (CIPD, 2018b, 2019; IoD, 2018).

The next section discusses this issue along with other policy options for seeking to rectify the imbalances that have been identified in the UK education and training system.

5. Summary and policy discussion

5.1 Overview

This review of evidence has established that the current education and training system in the UK is failing to meet many employers' skill needs, particularly in relation to intermediate skills (Section 2.5) and the upgrading of adult workers' skills (Section 4.3).

At the same time, the current education and training system contributes to unfavourable labour market prospects for a sizeable proportion of recent graduates (Section 2.3) while failing to meet demand from young people interested in acquiring substantive skills through apprenticeship training (Section 3.3). It also provides very little support for adults who wish to study part-time in higher or further education and others who wish to improve their skills and knowledge in other ways at intervals throughout their lives. Increasingly, this lack of support for adult learning is a problem for relatively young adults (aged 25-39), many of whom receive less employer-provided training than their counterparts in earlier generations (Section 4).

These shortcomings contribute to poor productivity performance in many workplaces. They also reduce the wider social and economic benefits which arise from continuing adult learning, whether employment-related or community-related, and worsen social and inter-generational equity.

The problems are rooted in two fundamental imbalances:

1. Public spending on initial education and training is heavily weighted towards HE at the expense of FE and VET (Section 2).
2. Public spending on education and training as a whole provides very weak support for continuing education and training compared to that provided for initial education and training for new entrants to the workforce (Section 4).

In addition, there is a marked reluctance by many employers to invest in work-based training, especially long-duration apprenticeship training (Section 3), even though many

of the same employers clearly value skills that are best learned in employment through workplace training and experience (Sections 2.5 and 4.3).

We now go on to consider ways in which the major imbalances in public spending on post-18 education and training can be reduced by rethinking the mix of public subsidies and tuition charges. This is followed by discussion of the scope for leverage within the Apprenticeship Levy system to encourage increased spending on long-duration intermediate skills training by employers. Finally, consideration is given to potential means of encouraging short-duration continuing training for adult workers while taking care not to undermine apprenticeship training.

5.2 Rebalancing public subsidies and tuition charges in post-18 education and training

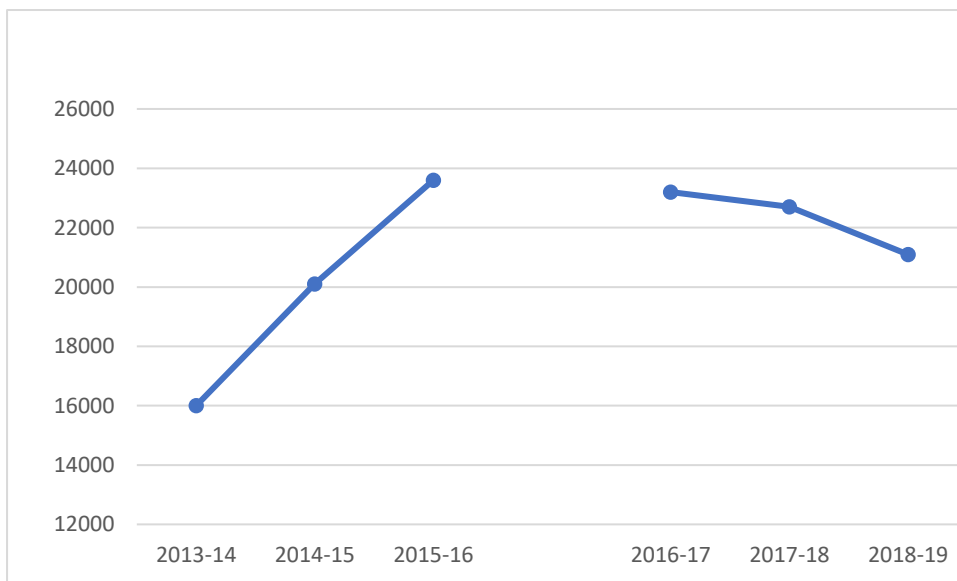
Focussing on England (which accounts for a large majority share of the UK population), course tuition fees are now pervasive in FE as well as in HE. For example, FE students aged 24-plus are now expected to take out Advanced Learner Loans in order to pay fees for Level 3 and 4 courses which lead to intermediate craft- and technician-level qualifications. The same applies to 19-23 year old FE students who are pursuing Level 3 or 4 qualifications in addition to similar qualifications which they already hold (Belfield et al, 2018, Table 4.2).

These FE course fee and loan systems operate in a similar way to Bachelor degree courses and HE loan systems in that tuition fees are charged from Year 1 onwards while student loans are expected to be repaid on an income-contingent basis subsequent to course completion. In the case of full-time HE students pursuing Bachelor degrees, such arrangements have not to date prevented participation rates from rising, in large part because of the continuing relatively high average wage premium attached to Bachelor degree qualifications and the relative youth of most students involved (Section 2.1).²² By contrast, the introduction of fees for FE students aged 24-plus in 2013-14 is estimated to have contributed to approximately three quarters of the 31% drop in ‘loans-eligible

²² The same is not true of mature students studying part-time in HE who are more reluctant than young people to take on debt (Section 4.1).

learners' from 142,000 to 98,000 between 2012-13 and 2013-14 (IFF Research, 2018). Without the introduction of Advanced Learner Loans at the same time as tuition fees were imposed, the decline in learner numbers would have been larger still (ibid). However, the initial take-up of Advanced Learner Loans by 16,000 FE students in 2013-14 was substantially lower than expected.²³ After some early growth from that low base, borrower numbers have declined in recent years (Figure 4).

Figure 4: Advanced Learning and Learner Loans paid to FE learning providers on behalf of learners in England, 2013-14 to 2018-19



Source: Student Loans Company Official Statistics SLC OSP 01/2016 and SLC OSP 01/2019

Notes: Refers to new loans taken out by learners by 31 October of each entry year.

From 2013-14 to 2015-16 refers to 24+ Advanced Learning Loans. From 2016-17 onwards refers to Advanced Learner Loans, renamed to reflect the expansion of the scheme to include both learners aged 19-23 on the first day of their course and Level 5-6 courses.

In spite of the very modest impact of Advanced Learner Loans to FE students, the Augar (2019) report places great emphasis on attempting to encourage adult participation in intermediate-level vocational courses by extending student loan facilities available at Level 6 to Levels 4-5. It calls for a 'lifelong learning loan allowance for tuition loans at Levels 4, 5 and 6, available for adults aged 18 or over, without a publicly funded degree' (2019:40). However, there are few reasons to believe that providing such lending facilities at Levels 4-5 will entice borrowers on anywhere near the scale of loans taken out by

²³ According to an analysis in *FE Week*, as much as 58 per cent of the funding allocated to FE loans between 2013-17 was not spent. See Billy Camden, 'Learners starting FE loans funded courses fall for third consecutive year', *FE Week*, 24 January 2019. <https://feweek.co.uk/2019/01/24/learners-starting-fe-loans-funded-courses-falls-for-third-consecutive-year/>

students enrolling directly for Level 6 qualifications. Indeed, as described in Section 4.2, very few current adult learners appear willing to go into debt in order to pay for course fees (Table A8). Similarly, Averill et al (2019) report fear of over-indebtedness as a significant constraint on ‘prospective learners’ taking out loans to cover course fees.²⁴

In this context, a more direct way to help shift the balance of public spending away from full-time HE courses and towards intermediate skills training and continuing education and training would be to shift the weight of course fees away from qualifications at Levels 3-5 and towards the later stages of Bachelor degree and Higher degree studies (Level 6 and above).

This approach is recognised in a recent proposal by Schuller, Tuckett and Wilson (2018) for a National Learning Entitlement (NLE) which it was hoped would enable all persons aged 18 or above who do not already have a Bachelor degree to have ‘free access’ to publicly-provided (or publicly-recognised) education and training for the equivalent of two years. This entitlement would apply to further and adult education colleges as well as to universities and could be used flexibly for part-time study over a number of years.

Schuller et al (2018) suggested a lifetime entitlement of £10000 per person from the age of 18 onwards, with maximum support in a single year of £5000. The round figure of £5000 was chosen to fall roughly between average tuition fees charged in FE and those charged in HE.

FE tuition fees vary greatly between courses, partly depending on the level and complexity of courses and the extent to which they are lab- or workshop-based rather than classroom-based. According to recent estimates, the average size of Advanced Learner Loans extended to borrowers studying for Level 3 and 4 qualifications in FE colleges in 2017-18 was £2390.²⁵ However, at Levels 4-5 in the case of STEM (science, technology, engineering and maths) courses, even middle-range costs per learner can range up to £6500 per year in FE colleges.²⁶

²⁴ In this study ‘prospective learners’ are defined as those who have considered or started studying for a new qualification in the previous five years.

²⁵ Source: SLC/DFE (2019), SLC OSP01/2019, Advanced Learner Loans Paid to Further Education Learning Providers on behalf of Learners in England (Table 2)

²⁶ Source: DFE (2017), The Costs of Providing Levels 4 and 5 in Further Education (Figure 1)

At the same time estimates based on Student Loan Company data show annual ‘mean headline tuition fees’ for Foundation degree and Higher National Diploma/Certificate courses at Levels 4-5 provided in HE institutions ranged between £7160-7510 in 2016-17. In FE colleges with ‘access agreements’ in place during that year equivalent mean headline tuition fees ranged from £6180-7240; in FE colleges without such agreements, equivalent fees ranged from £5620-6010.²⁷

Thus, average annual tuition fees for Level 4-5 courses in both FE and HE institutions often exceed the proposed £5000 annual NLE. Indeed, in some cases average tuition fees for Level 4-5 courses were not far short of the maximum tuition fees for Bachelor degree courses in HE institutions which have been set at £9250 per year since 2017 (Britton et al, 2019).

With fee levels of this magnitude, the proposed NLE worth £5000 per year would not ensure ‘free access’ for all students seeking qualifications at Levels 4-5 in FE and other institutions but it would reduce their annual tuition borrowing requirements to some extent (assuming FE colleges did not raise their fees in response to the students having access to NLE funding). In the case of full-time students on Bachelor degree courses, tuition costs up to £5000 per year would be covered by the NLE during Years 1-2 of study and annual borrowing requirements would decline to £4250. For Bachelor degree students, full course fees would resume being charged in the third and subsequent years of study.²⁸

The continued need for many students on Level 4-5 courses to take out loans to cover part of their tuition fees falls some way short of shifting the balance of incentives as decisively as would occur if Level 4-5 fees were fully covered by the NLE. One solution

²⁷ Source: DFE (2019). Higher Education Tuition Fee Prices: Using 2016/17 Student Loan Company data to estimate headline tuition fee prices in the Higher Education sector by provider and qualification type, Refers to full-time, English domiciled, first-year students (Table 3). ‘Access agreements’ in 2016-17 “set out how the provider planned to sustain or improve access, student success and progression among people from underrepresented and disadvantaged groups. If a provider received public funding from HEFCE but did not have an access agreement in place the highest fee they could charge in 2016/17 was £6,000” (DFE, 2019, Footnote 1)

²⁸ These could be covered by students taking out loans on a much reduced scale compared to current levels of student indebtedness or by some form of graduate tax (for example, an all-age graduate tax of the kind proposed by Green and Mason (2017)) or by employer support (in the case of employees studying part-time).

to this problem would be to raise the annual NLE above £5000 but this would increase the element of subsidy for Bachelor degree students still further.

These concerns raise a further question of how often it would be necessary to adjust lifetime entitlements under the NLE in order to match tuition fees charged on courses for which policy-makers wished to maintain free access. An alternative, more direct approach would be to increase the number and types of course for which adult learners would not be charged tuition fees. For example, although Augar (2019) continue to favour tuition fees being charged for courses at Level 4 and above, they recommend that full funding for Level 2 and 3 courses should be available for learners of all ages, whether in employment or not.²⁹

Current Labour Party plans for a National Education Service adopt a direct approach to ensuring free access to FE courses in calling for the ‘[replacement of] Advanced Learner Loans and upfront course fees with direct funding, making FE courses free at the point of use’ which would cover all vocational courses up to Level 5.³⁰ However, the same document reiterates Labour’s 2017 election promise to abolish university tuition fees as well, thus doing nothing to alter the current balance of incentives for students which encourages many of them to embark on full-time HE courses at age 18 rather than embark on intermediate-level education and training courses.

Taking these considerations into account, the most straightforward way to help shift the balance of public spending away from full-time HE courses and towards intermediate skills training and continuing education and training would be to offer full public funding for all FE courses up to Level 5 to learners of all ages, whether in employment or not.³¹ Any such effort to curb the dominant model of full-time study for Bachelor degree courses should not be seen as limiting the HE aspirations of potential students but rather as a means of diversifying HE entry routes in terms of age, entry qualifications, mode of study and prior work and life experience.

²⁹ Augar (2019) Recommendations 2.9 and 2.10.

³⁰ Labour Party (2019), Towards a National Education Service, available at: <https://labour.org.uk/manifesto/education/> [Accessed: 19 October 2019]

³¹ It follows that, if policy-makers wish to reduce the heavy burden of debt on HE students while encouraging participation in intermediate-level courses, reduction of HE course fees should be confined to Years 1-2 of HE study (where there is some overlap with Level 4-5 courses) rather than be applied to Year 3 and subsequent years of HE study.

For example, one way of encouraging higher take-up of courses at Levels 4-5 would be to combine full funding of Level 4-5 courses with development of the long (if intermittent) tradition of ‘two plus two’ courses offered by some British HE institutions whereby two years of study for Foundation degrees or Higher National awards at FE colleges are followed by two years study to complete Bachelor degrees at an associated university (Parry et al, 2012).

This could encourage more people to gain Level 4-5 qualifications and then seek employment in technician-level jobs rather than go on immediately to complete Bachelor degree studies. In so doing, it would build on existing patterns of labour market entry: for example, in 2016-17 about 39% of Level 4-5 learners in England entered full-time employment after completing their Level 4-5 qualifications while 26% progressed to full-time study; a further 27% carried on with part-time work or study or a mixture of the two (Zaidi et al, 2019, Table 13).

At the same time employees studying part-time for Foundation degrees or Higher Nationals as part of their apprenticeships would subsequently, after a period of time working at technician level, be well-placed to seek support from their employers with course fees for further studies to complete Bachelor degrees.

At other levels of FE -- below Level 4 and including community learning courses which do not necessarily lead to formal qualifications – abolition of fees for all courses could very usefully be presented as a social entitlement (similar to the NLE) in order to encourage participation in FE courses by people in all age groups, for example:

- 18-24 year olds undertaking initial vocational education courses
- adults aged 25-plus attending courses chosen either for their relevance to employment (eg, updating or improving skills needed to advance their careers) or for general-interest reasons
- adults using access courses to prepare themselves for higher-level college and university studies

If combined with reinvestment in FE college resources (as recommended by Augar, 2019), abolition of tuition fees for FE courses should also provide a stimulus for learning providers to explore the potential for new adult learning courses in their communities and

to step up their efforts to increase public interest in taking advantage of such learning opportunities.

Further research and investigation into full public funding of FE courses should also consider policies such as means-tested entitlements to maintenance grants for FE students and the possibility of tuition fees being waived for students taking additional courses at levels where they have already acquired previous qualifications (an increasingly common requirement for many individuals in a rapidly changing labour market).

However expensive the abolition of tuition fees for all FE courses up to Level 5 would be, the vocational and continuing education and training sectors should feel free to make a strong case for increased public funding alongside other claimants on general tax revenues such as health care, social care and pre-school, primary and secondary education. Ultimately, improvements in all areas of public service may depend on future political choices regarding the extension of the tax base to wider sources of income and wealth than currently apply.

5.3 Quality improvements needed within the Apprenticeship Levy system

As described in Section 3.3, there are concerns that many Levy-paying firms are focussing training under the apprenticeship heading on existing well-qualified employees rather than on lower-qualified or newly-recruited staff. These employer priorities arise even when it is acknowledged by managers responding to surveys on behalf of the same organisations that many lower-qualified employees stand in need of the kind of skills which are best acquired through employment-based training (Section 2.5). In larger organisations disparities between apparent training needs and training actions may reflect internal divisions between those managers who strongly support workforce training and those who do not.

Given these different perspectives within firms, the workings of the Apprenticeship Levy system provide scope for leverage on firms to expand genuine apprenticeship training by providing managerial proponents of such training within firms with additional ‘ammunition’ to help them persuade other managers of its merits. Recall that Levy-paying firms can draw on funds paid into their own apprenticeship service accounts only if they

plan to implement apprentice training programmes which conform to occupation-specific standards or frameworks developed by employer groups or sector bodies in conjunction with the Institute for Apprenticeships and Technical Education (IfATE) (Section 3.2).

Under this system each apprenticeship standard or framework is allocated to one of 15 funding bands whose upper limits currently range from £1,500 to £27,000 per trainee. So long as the employer representatives responsible for training standards enjoy solid support within their industries, it should be possible for procedures concerning drawdown of Levy funds to be carried out in ways that discourage rebadging of existing training for highly-qualified employees. For example, one role of IfATE is to monitor the proposed costs of different types of training course and to insist on ‘value for money’. This can militate against the use of Levy funds to pay for expensive courses such as MBAs.³² More direct steering of the priorities for disbursement of Levy funds can come through the responsible government department (DFE), perhaps responding to policy advice such as the Augar (2019:153) recommendation that ‘funding for Level 6 and above apprenticeships [should be restricted] to those who have not previously undertaken a publicly-supported degree’.

At lower levels of apprenticeship training, similar political guidance could be offered to encourage the wider use of Levy funds to support Level 3 training programmes and Level 2 programmes with clear plans for progression to Level 3.

In this context employer representatives responsible for training standards need strong support within their industries in order to push through such improvements since, in previous decades, many training levy systems in the UK lost political support partly as a result of divisions among employers (Senker, 1992; Gospel, 2012). However, the present Apprenticeship Levy system still enjoys considerable support among employers and politicians,³³ in part because of the many examples of low-quality training which arose during the expansion of government-subsidised training under the apprenticeship heading in the 2006-16 period (Section 3.1).

³² See Jonathan Moules, ‘Apprenticeship levy funding curbs threaten to hit MBA courses’, *Financial Times*, 6 December 2018. <https://www.ft.com/content/62ec2052-f950-11e8-8b7c-6fa24bd5409c>

³³ For example, see <https://feweek.co.uk/2019/04/05/two-years-since-the-levy-launched-skills-minister-reflects-on-success-of-a-carrot-and-stick-policy/> ; <https://www.theguardian.com/careers/2019/mar/05/two-years-in-is-the-apprenticeship-levy-still-working>

Several researchers and organisations argue that employer support for the current Levy system could be strengthened by extending the Levy to smaller firms (but not micro-firms) and to non-apprentice training needs, for example, short-duration skills updating and improvement courses for adult workers (Dromey et al, 2017; CIPD, 2018b, 2019; Open University, 2018). This could provide a means of stimulating more employers to meet the widespread upskilling needs within their firms, as identified in successive Employer Skills Surveys (Section 4.3).

But this objective should not be pursued at the expense of trying to improve the quality of apprenticeship training. The deep-rooted inherited quality problems of the apprenticeship system include the severe rundown of FE college resources after years of neglect (Augar, 2019) and marked shortages of capable training providers and end-point assessment organisations within the apprenticeship system (House of Commons Education Committee, 2018). In this context present concerns about the initial post-Levy drop in apprenticeship start numbers are misguided. Indeed, as discussed in Section 3.2, there is a very strong case for prioritising improvements in quality over quantity at this stage in the reform of apprenticeship training. This could only be hampered by extending the current Apprenticeship Levy system to cover short-duration training needs as well as long-duration training.

What is needed instead is new initiatives running parallel to the Apprenticeship Levy which are designed to encourage short-duration continuing education and training for adults of all ages. Possible options for this approach include:

- (1) A new Continuing Training Levy which would operate in complete independence from the Apprenticeship Levy and perhaps cover a wider range of firm sizes
- (2) New tax credits for employers to encourage wider provision of short periods of work-related skills updating and improvement training for their employees
- (3) In the event of abolition of tuition fees for all FE courses up to Level 5, look for ways to enlist employers in encouraging adult employees to take advantage of free access to continuing education and training (see Section 5.2).

Careful research and thought will need to be given to how these and any other ideas for encouraging continuing education and training might be successfully implemented given

past negative experience of unintended outcomes with some training programmes. For example, Individual Learning Accounts had to be closed due to a high incidence of fraudulent claims by learning providers (NAO, 2002) while the former Train to Gain programme subsidised a great deal of training that would have occurred without public subsidy (NAO, 2009). Policy-makers face severe challenges as a result of decades of institutional failure in the UK's education and training system and the prevailing short-sighted approach to skills development in large sections of the UK economy.

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Appendix A: ADULT EDUCATION AND TRAINING IN GREAT BRITAIN (AGE 25-PLUS): STATISTICAL OVERVIEW

The 2017 Adult Participation in Learning Survey (APLS), carried out by the Learning and Work Institute, covered 5169 persons aged 17-plus in Great Britain, of whom 4598 were aged 25-plus. This survey adopted a broad definition of learning, with respondents being told:

“Learning can mean practising, studying, or reading about something. It can also mean being taught, instructed or coached. This is so you can develop skills, knowledge, abilities or understanding of something. Learning can also be called education or training.

“You can do it regularly (each day or month) or you can do it for a short period of time. It can be full-time or part-time, done at home, at work, or in another place like college. Learning does not have to lead to a qualification. I am interested in any learning you have done, whether or not it was finished”.

As shown in Table A1, Row 1, using this definition of learning, some 14% of adults aged 25-plus reported that they were currently doing some learning, with the proportion so reporting ranging from 6% of those aged 75-plus to 19% of those aged 35-44. A further 17% of adults aged 25-plus reported engaging in some form of learning activity in the previous three years (Row 2). In this and other tables in this Appendix, sample findings have been weighted to ensure that the estimates are representative of the population in Great Britain.

Table A1: Responses to question: Which of the following statements most applies to you? Adults aged 25-plus, Great Britain, 2017, population-weighted estimates

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adults in each age-group</i>						
I am currently doing some learning activity now	18	19	17	11	9	6	14
I have done some learning activity in the last 3 years	22	23	18	17	8	3	17
I have studied/learnt but it was over 3 years ago	24	25	29	32	36	32	29
I have not studied/learnt since I left full time education	36	33	35	39	45	56	39
Don't know	1	0.3	1	0.4	1	2	1
Total	100	100	100	100	100	100	100
<i>Weighted n =</i>	947	930	851	827	553	489	4598
<i>Unweighted n =</i>	783	757	744	722	846	746	4598

Source: Adult Participation in Learning Survey (APLS), 2017 (Q1).

Note (for all tables): Percentage column totals may not sum to 100 due to rounding.

A1: Comparison between APLS- and Labour Force Survey-based estimates of adult learning numbers

In spite of the broad definition of learning used in the APLS, comparisons with alternative estimates derived from Labour Force Survey (LFS) data suggest that APLS-based estimates may understate the proportion of adults currently engaging in some form of learning activity. These comparisons are confined to 25-69 year olds because adults aged 70-plus are not asked questions about education and training participation in the LFS.

According to APLS-based estimates, about 16% of 25-69 year olds were engaged in some learning activity during 2017 (Table A2, Row 1). Given a total population of 36.7 million 25-69 year olds in Great Britain in that year, this implies a total of approximately 5.9 million adult learners.³⁴ By contrast, LFS-based estimates suggest that about 20% of 25-69 year olds were engaged in education and/or job-related training in 2017 (Table A2, Row 6), implying a total 7.3 million adult learners in Great Britain in that year. The LFS-based estimates are consistently higher than the APLS-based estimates across all age-groups except for 65-69 year olds where the APLS-based estimate is substantially above the LFS-based estimate, possibly reflecting the greater likelihood of informal learning by older persons being captured under the APLS definition of learning.

Further research is necessary to understand the main reasons for this pattern of difference between the two sets of survey findings. While noting the uncertainty attached to estimates of total learner numbers, this overview relies heavily on APLS findings since that survey provides much more detailed information on adult learners' modes of learning and motivations for learning than does the LFS. In common with Egglestone et al (2018), learners are defined in subsequent analysis to include both those who were currently engaged in learning activity at the time of the 2017 survey and those who had engaged in some learning activity in the previous three years. Thus 31% of APLS respondents aged 25-plus are here classified as adult learners (Table A1, Rows 1-2).

³⁴ Source for population data:
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>

Table A2: Comparison of learning participation estimates based on Adult Participation in Learning Survey (APLS) and Labour Force Survey (LFS), adults aged 25-69, Great Britain, 2017, population-weighted estimates

Age-group:	25-34	35-44	45-54	55-64	65-69	Total
APLS 2017:						
	<i>% of adults in each age-group</i>					
Currently doing some learning activity						
Total learners (APLS)	18	19	17	11	13	16
<i>Unweighted n =</i>	<i>783</i>	<i>757</i>	<i>744</i>	<i>722</i>	<i>382</i>	<i>3388</i>
LFS 2017:						
Participating in:						
Education and job-related training	5	4	2	1	0.2	3
Job-related training only	17	19	18	14	3	16
Education only	4	2	1	1	0.5	2
Total participating in education and/or training (LFS)	26	24	22	16	4	20
<i>Unweighted n =</i>	<i>10095</i>	<i>11355</i>	<i>12290</i>	<i>11073</i>	<i>5497</i>	<i>50310</i>

Sources: APLS 2017; LFS (Spring Quarter) 2017.

Notes:

Education participation (LFS): Currently receiving education (CURED8) and either still attending course or waiting for term to start (ATTEND).

Training participation (LFS): Engaged in job-related training or education in the last three months (ED13WK) and/or doing college-based vocational training (FUTUR13) and/or currently undergoing apprenticeship training (APPRCURR).

A2: Motivations for adult learning participation

As shown in Table A3, Part A, when adult learners are asked about the single main reason for taking up learning, a large majority (71%) say it is for work and/or career reasons such as to improve their skills, pay, career prospects, job security or job satisfaction. This applies particularly to adults aged 25-64. However, when the same learners are offered the chance later in the survey to give multiple responses to a question about their motivations for learning, it becomes apparent that, for many learners, work-related motivations are reinforced by leisure-related and personal ambitions such as to develop themselves as persons, to improve in self-confidence, gain pleasure and interest from learning, to meet people and to support their children's schooling. The proportion of learners citing only work-related reasons drops to about a third and a similar proportion cite a mix of work-related and leisure/personal motivations

(Table A3, Part B). As expected, the group citing only leisure/personal reasons for learning continues to be dominated by adults aged 65-plus.

Table A3: Responses to questions about motivations for taking up learning
Adult learners aged 25-plus, Great Britain, 2017, population-weighted estimates

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
(A) Thinking about your main learning, why have you taken up this learning? (Q2, single response)							
For my work and/or career	83	80	75	66	22	6	71
For leisure or personal interest	16	20	25	34	78	94	29
Don't know	1	0	0	0	0	0	0
Total	100	100	100	100	100	100	100
(B) On this screen are some reasons people have given for why they chose to learn about a certain subject or skill. Again, thinking of your main learning, which of the following best describes the reasons you started this learning? (Q9, multiple responses possible)							
Work-related (only)	33	32	37	36	11	3	32
Leisure/personal/other (only)	24	27	28	33	71	74	32
Both work-related and leisure/personal	39	37	31	23	13	5	31
Other/don't know	4	4	4	7	5	19	5
Total	100	100	100	100	100	100	100
<i>Weighted n =</i>	332	349	265	210	86	42	1285
<i>Unweighted n =</i>	300	312	253	203	146	71	1285

Source: APLS 2017 (Q2, Q9).

Notes:

Learners defined as persons currently engaged in learning activity or who had engaged in some learning activity in the previous three years.

Classification of reasons for learning:

Work-related: To get a new or different job; To help me do my current job better/improve job skills; In order to set up a business; To help me increase my working hours; To get a promotion or better pay; To give me greater job security; To make my work more satisfying; Not really my choice - employer requirement; Not really my choice - professional requirement.

Leisure/personal/other: To get a recognised qualification; To help me get onto a future course of learning; To develop myself as a person; To improve my self-confidence; I enjoy learning/it gives me pleasure; I am interested in the subject/personal interest/gain knowledge of the subject; To meet people; To support my children's schooling; To keep active/pass the time; To improve my health/help with a disability; To enable me to volunteer; Not really my choice - benefit requirement.

A3: The dominant effects of previous education on adult learning participation

Table A4 reports a multivariate regression analysis which controls for age and a range of other factors contributing to adults' decisions to participate in learning. Looking first at individual characteristics, the results of Model 1 suggests that the estimated probability of women participating in learning is 5-6 percentage points (pp) higher than for men. There is no statistically significant difference in participation rates between white people and minority ethnic people in the 25-plus age group. These gender and ethnic findings remain stable when additional factors such as previous education (Model 2), labour market status (Model 3) and various household characteristics (Model 4) are included in the analysis. By contrast, severely disabled adults are significantly less likely to participate in learning but their disadvantage relative to non-disabled adults diminishes from 14 pp when only individual characteristics are considered (Model 1) to 5 pp when previous education and a range of other potential influences are included (Model 4).

In line with much previous analysis of APLS data (for example, White 2012; Egglestone et al, 2018),³⁵ participation rates are significantly positively correlated with previous levels of attainment in formal education. For example, the probability of adults with low qualifications (below NVQ2) or no qualifications participating in learning is 18 pp lower than for Bachelor degree holders, even after taking account of labour market participation, another strong correlate of adult learning, and diverse household characteristics (Model 4). For holders of NVQ2 and NVQ3 qualifications, the participation gaps relative to Bachelor degree holders are, respectively, 10 pp and 5 pp (Model 4). Among other things this specification controls for significant negative effects on learning participation arising from relatively low social class status and lack of access to the internet at home.

³⁵ White, P. (2012), Modelling the 'learning divide': predicting participation in adult learning and future learning intentions 2002 to 2010, *British Educational Research Journal*, 38(1): 153–175; Egglestone, C., Stevens, C., Jones E. and Aldridge, F. (2018), *Adult Participation in Learning Survey 2017*, Learning and Work Institute Report, London: Department for Education.

Table A4: Probit estimates of adult participation in learning, Great Britain, 2017, Marginal effects (evaluated at sample means)

	(1)	(2)	(3)	(4)
	Individual characteristics	Plus previous education	Plus labour market status	Plus household characteristics
Female	0.0556***	0.0604***	0.0685***	0.0581***
	[0.013]	[0.013]	[0.014]	[0.015]
<i>Ref: Age 25-34</i>				
Age 35_44	0.0288	0.0087	0.0083	0.0058
	[0.022]	[0.021]	[0.022]	[0.022]
Age 45_54	-0.0237	-0.0198	-0.0188	-0.0277
	[0.021]	[0.021]	[0.021]	[0.021]
Age 55_64	-0.0687***	-0.0472**	-0.0083	-0.0226
	[0.020]	[0.021]	[0.023]	[0.024]
Age 65_74	-0.1668***	-0.1388***	-0.0292	-0.036
	[0.017]	[0.017]	[0.033]	[0.034]
Age 75-plus	-0.2313***	-0.1837***	-0.0792**	-0.0604
	[0.015]	[0.017]	[0.034]	[0.038]
<i>Ref: Minority ethnic</i>				
White	-0.0104	0.0096	0.0041	-0.0202
	[0.023]	[0.022]	[0.023]	[0.024]
<i>Ref: No disability</i>				
Severe disability	-0.1368***	-0.0892***	-0.0635***	-0.0501**
	[0.017]	[0.020]	[0.022]	[0.023]
Partial disability	-0.0479**	-0.014	0.0019	0.0085
	[0.022]	[0.024]	[0.025]	[0.025]
<i>Ref: Bachelor degree</i>				
Higher degree		0.0934***	0.0849***	0.0663**
		[0.028]	[0.028]	[0.027]
Other HE / NVQ4 or equivalent		-0.0262	-0.0274	-0.0003
		[0.022]	[0.022]	[0.024]
A level / NVQ3 equivalent		-0.0822***	-0.0828***	-0.0462**
		[0.019]	[0.019]	[0.021]
NVQ2 or equivalent		-0.1392***	-0.1413***	-0.0985***
		[0.016]	[0.016]	[0.019]
Low or no qualifications		-0.2512***	-0.2485***	-0.1821***
		[0.015]	[0.016]	[0.019]
Other qualifications		-0.1407***	-0.1395***	-0.0838**
		[0.026]	[0.026]	[0.035]
<i>Ref: Permanent-contract full-time employee</i>				
Other full-time employee			0.0091	0.0307
			[0.044]	[0.046]
Permanent-contract part-time employee			-0.0098	-0.0028
			[0.026]	[0.027]
Other part-time employee			-0.024	0.0015
			[0.039]	[0.042]

Table A4: (continued)

	(1)	(2)	(3)	(4)
	Individual characteristics	Plus previous education	Plus labour market status	Plus household characteristics
Self-employed			-0.0439**	-0.0318
			[0.022]	[0.022]
Unemployed			-0.0157	0.0143
			[0.032]	[0.037]
Retired			-0.1646***	-0.1629***
			[0.028]	[0.028]
Other economically inactive			-0.0852***	-0.0620***
			[0.020]	[0.023]
<i>Ref: Social class A</i>				
Social class B				-0.0129
				[0.036]
Social class C1				-0.0682**
				[0.034]
Social class C2				-0.1253***
				[0.031]
Social class D				-0.1524***
				[0.028]
Social class E				-0.1354***
				[0.033]
<i>Ref: House owned outright</i>				
House mortgaged				-0.0097
				[0.021]
House rented				-0.0135
				[0.020]
<i>Other household characteristics:</i>				
Married				-0.0397**
				[0.016]
Single parent				0.0459
				[0.037]
Main income earner				-0.0109
				[0.018]
No internet access				-0.1111***
				[0.022]
Regional controls	YES	YES	YES	YES
Observations	4598	4598	4598	4598
Pseudo R sqd	0.0734	0.133	0.141	0.16
Wald Chi2	349.3	618.4	662.3	703.3

Notes: *** significant at 1%, ** significant at 5%, * significant at 10%

Probit estimates. Robust standard errors in parentheses. The dependent variable = 1 if respondents are currently doing some learning activity now or have done so in the last three years. Marginal effects are evaluated at the mean values of other independent variables.

A4: Modes and locations of adult learning

When asked about how they did their main learning (with multiple responses permitted), adult learners aged 25-plus highlight three main modes or locations of learning in particular: job-related (41% of learners), higher education (29%) and independent means of study (27%) (Table A5, Part A). By contrast, only small proportions of learners report any contact with further education colleges (7%), local schools and other community organisations (9%) and local adult education centres and related organisations (6%). The relatively small numbers of adult learners aged 65-plus are notable for reporting above average involvement in independent study (45% of learners in the 65-74 age group; 63% of those aged 75-plus), often involving use of the internet.

When these data are re-examined to explore the prevalence of certain combinations of learning modes and/or locations (Table A5, Part B), about three quarters of adult learners who described their learning as job-related do not report any other mode or location of learning. By contrast, more than half of those who referred to higher education in some form turn out to also have some involvement with further education colleges, local schools and other community organisations or local adult education centres. What this conveys is that adult learners' use of further education colleges and other local organisations for reasons unrelated to higher education is by no means common. For example, prominent courses which straddle the higher education – further education divide include courses designed to prepare students for entry to degree-level studies such as Access to Higher Education diploma courses (mostly offered by further education colleges) and integrated foundation year courses (mostly provided by higher education institutions) (OfS, 2019).³⁶

Another notable finding is that as many as 22% of all adult learners rely solely on independent study alone, on-line investigations or combinations of independent and on-line learning, without any apparent recourse to a physical centre of learning where teachers and fellow-students might be found. As noted above, these independent learners are concentrated in older age groups but exist to some extent in all age groups.

³⁶ OfS (2019), *Preparing for degree study: Analysis of Access to Higher Education Diplomas and integrated foundation year courses*, Cheltenham: Office for Students.

Table A5: Responses to question: [Thinking about your main learning], how did you do this learning?

Adult learners aged 25-plus, Great Britain, 2017, population-weighted estimates

A: Mode/location of learning, multiple responses possible

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
Job-related	41	46	46	47	14	4	41
Higher education	43	27	23	22	20	19	29
Further education	10	7	6	7	5	5	7
Local adult education centre/evening institute/WEA	4	6	5	8	8	13	6
Local school/voluntary/ community/leisure organisation	3	7	9	12	26	24	9
Online	8	14	20	18	13	12	14
Independent	20	26	27	27	46	63	27
Other	2	2	3	5	6	4	3
Don't know	0.5	0.4	0	0	0	0	0.2
<i>Weighted n =</i>	<i>332</i>	<i>349</i>	<i>265</i>	<i>210</i>	<i>86</i>	<i>42</i>	<i>1285</i>
<i>Unweighted n =</i>	<i>300</i>	<i>312</i>	<i>253</i>	<i>203</i>	<i>146</i>	<i>71</i>	<i>1285</i>

B: Mode/location of learning, summary of responses (including combinations of responses)

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
Job-related only	30	35	34	37	10	2	31
Higher education only	24	12	8	4	4	0	12
Independent only	10	14	13	12	28	45	14
Higher education plus Further education	9	5	5	7	4	3	6
Local school/voluntary/ community/leisure organisation only	3	4	6	5	16	13	5
On-line only	3	8	8	6	5	7	6
Higher education plus Local adult education centre/evening institute/WEA	3	4	5	5	7	4	4
Job-related plus Independent	4	4	2	2	1	0	3
Other mode/location only	1	1	3	3	4	2	2
On-line plus Independent	1	1	3	4	3	3	2
Other combinations involving Job-related plus Higher education	4	3	3	2	1	0	3

Table A5 (continued):**B: Mode/location of learning, summary of responses (including combinations of responses)**

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
Other combinations involving Job-related	3	5	6	7	1	2	4
Other combinations involving Higher education	4	3	2	4	4	12	4
Other combinations	1	2	2	3	10	7	3
Don't know	0.5	0.4	0	0	0	0	0.2
Total	100	100	100	100	100	100	100
<i>Weighted n =</i>	<i>332</i>	<i>349</i>	<i>265</i>	<i>210</i>	<i>86</i>	<i>42</i>	<i>1285</i>
<i>Unweighted n =</i>	<i>300</i>	<i>312</i>	<i>253</i>	<i>203</i>	<i>146</i>	<i>71</i>	<i>1285</i>

Source: APLS 2017 (Q3).

Notes:

Learners defined as persons currently engaged in learning activity or who had engaged in some learning activity in the previous three years.

Classification of modes/locations of learning:

Job-related: On the job; On a training course at work; On an external training course arranged by my employer; On an apprenticeship or higher apprenticeship; Any work-related training course.

Higher education: Through a university/higher education institution/Open University; Any higher education.

Further education: Through a further education college/tertiary/6th form college.

Local adult education centre/evening institute/WEA: Through a local adult education centre/evening institute/Workers' Educational Association.

Local school/voluntary/community/leisure organisation: Through a local school; Through a voluntary organisation; Through local community facilities e.g. library, museum, place of worship, bookshop; Through a leisure or health club.

Online: Online including through an app e.g. websites, forums, YouTube.

Independent: Independently on my own; Independently with others; Any independently.

A5: Subjects of study

In the 25-64 age-groups where most adult learners are employed or seeking employment, the main subject areas of study are health and science (including medicine, nursing, first aid), digital\computer skills\information technology (IT), business and administrative and childcare and education (Table A6). Among 65-plus year olds, computer and IT skills also feature prominently but are outweighed by creative and design subjects such as art, crafts, photography, music and floristry.

Table A6: Responses to question: What are you currently learning about?

Adult learners aged 25-plus, Great Britain, 2017, population-weighted estimates, multiple responses possible

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
Health and Science (including medicine, nursing, first aid)	22	18	19	19	9	5	18
Digital\Computer Skills\Information Technology	7	11	11	11	9	21	10
Business and Administrative	11	10	10	5	2	1	9
Childcare and Education	9	10	10	8	6	0	9
Creative and Design (including art, crafts, photography, music, floristry)	3	6	9	10	27	23	8
Social Care	3	7	9	5	4	4	6
Legal, Finance and Accounting	7	6	5	7	4	1	6
Engineering and Manufacturing	5	5	4	3	0	1	4
Foreign languages (excluding Welsh)	2	2	4	6	12	11	4
Construction (including carpentry)	4	4	3	5	2	2	4
Sports\Dance	3	4	3	4	6	7	4
Catering and Hospitality (including cookery)	2	5	3	5	4	2	3
English (language\literature)	4	4	2	2	4	7	3
Maths	4	3	2	1	1	0	3
Transport and Logistics	4	3	2	1	0	2	3
Other subjects	22	22	24	32	34	30	25
<i>Weighted n =</i>	332	349	265	210	86	42	1285
<i>Unweighted n =</i>	300	312	253	203	146	71	1285

Source: APLS 2017 (Q4).

Notes:

Learners defined as persons currently engaged in learning activity or who had engaged in some learning activity in the previous three years.

Other subjects include: Agriculture, Environmental and Animal Care; Sales, Marketing and Procurement; Religion/Theology; History; English as a second or additional language; Other 'leisure' subjects; Protective Services (including police, fire service, coastguard); Health and Safety; Management/team leadership; Psychology; Hair and Beauty; Other academic subjects; Welsh language; Other informal/community learning; HR/recruitment; Horticulture/gardening; Spiritualism/tarot; A Levels/Diploma/school (no further detail); Criminology; Mentoring; Counselling; Sociology; Politics; Current/World affairs/news media; Surveying/Architecture; Cars/car maintenance; Public services/public policy; Geography; Electrician; Other professional and vocational qualifications.

Given the emphasis on work-related study by 25-64 year olds, their learning is far more likely to lead to formal qualifications than is the case for those aged 65-plus (Table A7).

A6: Payment of course fees

Across all adult learners aged 25-plus, some 36% reported that their employers paid their course fees while 6% said that their learning took the form of internal employer-provided training (Table A8). Some 28% said they paid course fees directly themselves while another 18% said there were no fees to be paid. Across all age groups the take-up of formal loans to pay for course fees was relatively low, ranging from 11% of adult learners aged 25-34 to 3% of those aged 35-44, 4% of those aged 45-54 and 1% of those aged 55 or older.

A7: Barriers to learning participation

When adult non-learners are asked about the barriers to them participating in learning, cost and money considerations tend to rank below other factors such as work and time pressures, lack of confidence and lack of interest in learning (Table A9). Similarly, only a small proportion of adult non-learners (12%) say that they could be encouraged to engage in learning activity in the future by lower course fees or greater willingness by employers to pay all or some of their course fees (Table A10, Part B). A larger proportion of non-learners (26%) mentioned greater flexibility and convenience of course timing and location as making it more likely that they would take up learning. However, it is notable that half of non-learners offered no suggestions at all regarding possible incentives to engage in learning.

In the case of adult learners, some 27% said that they would be more likely to engage in future learning activity if course fees were lower and/or larger contributions by employers were made towards course fees (Table A10, Part A). This was outweighed by the 46% of learners who pointed to the need for improvements in the convenience of course timing and location. There was a wide range of opinion among potential adult learners about how convenience could be improved.

Table A7: Responses to question: Thinking about your main learning, does this learning lead to a qualification?

Adult learners aged 25-plus, Great Britain, 2017, population-weighted estimates

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
Yes – learning leads to qualification	75	66	56	42	24	9	58
No – learning does not lead to qualification	25	33	43	58	76	91	42
Don't know	0	1	0	0	0	0	0
Total	100	100	100	100	100	100	100
<i>Weighted n =</i>	<i>332</i>	<i>349</i>	<i>265</i>	<i>210</i>	<i>86</i>	<i>42</i>	<i>1285</i>
<i>Unweighted n =</i>	<i>300</i>	<i>312</i>	<i>253</i>	<i>203</i>	<i>146</i>	<i>71</i>	<i>1285</i>

Source: APLS 2017 (Q5).

Notes: Learners defined as persons currently engaged in learning activity or who had engaged in some learning activity in the previous three years.

Table A8: Responses to question: [Thinking about your main learning], who pays for this learning?

Adult learners aged 25-plus, Great Britain, 2017, population-weighted estimates, multiple responses possible

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
There was no fee to be paid	12	16	18	20	30	51	18
Internal training provided by employer	5	6	7	10	1	0	6
My employer paid	34	43	43	32	14	3	36
I paid the fee directly	27	27	23	26	45	38	28
I paid the fee by taking out a formal learning loan e.g. Student Loan, Advanced Learner Loan, Career Development Loan	9	3	3	1	0	0	4
I paid the fee by taking out a non-learning specific loan e.g. loan from a bank or building society, loan from a friend or family member	2	0	1	0	1	0	1
The fee was paid by a friend or family member as a gift	1	1	1	1	0	0	1
Help from my institution e.g. access funds, grants, bursaries etc.	3	2	1	2	3	3	2
Other government funding	10	6	6	7	4	3	7
Charitable trust or other non-government organisation	2	2	0	1	3	0	1
Don't know	1	1	1	1	0	3	1
<i>Weighted n =</i>	<i>332</i>	<i>349</i>	<i>265</i>	<i>210</i>	<i>86</i>	<i>42</i>	<i>1285</i>
<i>Unweighted n =</i>	<i>300</i>	<i>312</i>	<i>253</i>	<i>203</i>	<i>146</i>	<i>71</i>	<i>1285</i>

Source: APLS 2017 (Q6).

Notes:

Learners defined as persons currently engaged in learning activity or who had engaged in some learning activity in the previous three years.

**Table A9: Responses to question: From the following list what, if anything, would you say are the main things preventing you from taking part in learning?
Adults aged 25-plus who have not engaged in learning in the past three years,
Great Britain, 2017, population-weighted estimates,
multiple responses possible**

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult non-learners in each age-group</i>						
Lack of time	36	36	23	12	7	3	21
Lack of interest	15	14	19	19	22	20	18
Lack of confidence	7	7	11	15	17	37	15
Cost/affordability	16	11	8	5	3	2	8
Illness/disability	4	5	9	10	7	9	7
Inconvenient/unsuitable courses	2	2	2	3	4	3	3
Lack of information	2	3	1	2	2	1	2
Other	0	1	0	1	0	0	1
'Nothing is preventing me'	35	35	37	44	45	37	38
Not known	1	1	2	0	2	2	1
<i>Weighted n =</i>	597	562	569	617	472	456	3272
<i>Unweighted n =</i>	479	442	482	516	689	664	3272

Source: APLS 2017 (Q14).

Notes:

Non-learners defined as persons who are not currently engaged in learning activity and have not engaged in some learning activity in the previous three years.

Classification of responses regarding learning barriers:

Lack of time: Work/other time pressures; Childcare arrangements or other caring responsibilities.

Lack of interest: Not interested/don't want to; I feel no need to learn anymore; Retired; I haven't got round to doing it.

Lack of confidence: I don't feel confident enough; I feel I am too old; I am put off by tests and exams; I have difficulties with reading and writing; I have difficulties with numbers; I don't have the qualifications needed for a course; I've tried learning in the past and it has been unsuccessful.

Cost/affordability: Cost/money/can't afford it; Benefits would be cut if I did a course.

Inconvenient/unsuitable courses: No suitable courses are available; Transport/too far to travel.

Lack of information: I don't know what is available; I don't know how to find out what is available.

Table A10: Responses to question: The following are some of the things that people say would make learning more attractive. Which, if any, would make you more likely to join another course or take up more learning?

Adults aged 25-plus, Great Britain, 2017, population-weighted estimates, multiple responses possible

A: Learners

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult learners in each age-group</i>						
More convenient	49	53	46	39	36	22	46
Helpful to job and pay prospects	42	32	29	16	4	0	28
Lower cost / more affordable	35	31	27	19	15	1	27
Interesting course content	15	17	20	18	34	15	18
More advice and encouragement	18	12	10	14	10	2	13
More support	9	13	6	3	3	6	8
None of the above	14	14	25	30	34	53	22
Don't know	4	5	3	6	3	9	4
<i>Weighted n =</i>	<i>332</i>	<i>349</i>	<i>265</i>	<i>210</i>	<i>86</i>	<i>42</i>	<i>1285</i>
<i>Unweighted n =</i>	<i>300</i>	<i>312</i>	<i>253</i>	<i>203</i>	<i>146</i>	<i>71</i>	<i>1285</i>

B: Non-Learners

Age-group:	25-34	35-44	45-54	55-64	65-74	75+	Total
	<i>% of adult non-learners in each age-group</i>						
More convenient	39	39	27	19	18	7	26
Lower cost / more affordable	23	19	14	7	5	1	12
Helpful to job and pay prospects	18	17	11	6	1	0	9
Interesting course content	9	8	9	9	9	6	8
More support	10	13	7	3	2	2	6
More advice and encouragement	8	8	7	5	3	2	6
None of the above	31	33	47	55	65	76	50
Don't know	5	4	7	9	6	9	7
<i>Weighted n =</i>	<i>603</i>	<i>565</i>	<i>581</i>	<i>620</i>	<i>480</i>	<i>465</i>	<i>3313</i>
<i>Unweighted n =</i>	<i>483</i>	<i>445</i>	<i>491</i>	<i>519</i>	<i>700</i>	<i>675</i>	<i>3313</i>

Source: APLS 2017 (Q15).

Notes:

Definitions of learners and non-learners: see notes to Tables A8 and A9.

Classification of responses regarding incentives to take up learning:

More convenient: If I could get time off work to learn; If I could learn at a more convenient location;

If I could learn at home; If I could learn at work; If I could learn in the evening; If I could learn in the daytime;

If I could learn at weekends; If there was a distance learning option, or I could learn fully or partly online;

If the start dates of learning were flexible; If I had a say in what and when I was going to learn.

Helpful to job and pay prospects: If it led to a qualification which employers recognise;

If it led to a qualification which would help me earn more/gain a promotion; If learning would help my job prospects.

Interesting course content: If the learning was related to something I'm interested in.

Lower cost / more affordable: If it was cheaper/the fees were lower; If my employer would pay all/some of the costs.

More support: If I could get support with childcare/other caring responsibilities; If I could get help with my illness/disability; If I could get help with English/reading/writing.

More advice and encouragement: If I could get expert advice on what course/learning project would suit me best;

If my line manager/employer encouraged me; If someone I knew and trusted encouraged me or came with me.

Table A11: Descriptive statistics for probit analysis, Adults aged 25-plus, Great Britain, 2017 (unweighted)

Variable	Obs	Mean	Std. Dev.
Participation in adult learning	4598	0.2795	0.4488
Age 25_34	4598	0.1703	0.3759
Age 35_44	4598	0.1646	0.3709
Age 45_54	4598	0.1618	0.3683
Age 55_64	4598	0.1570	0.3639
Age 65_74	4598	0.1840	0.3875
Age 75-plus	4598	0.1622	0.3687
Female	4598	0.5130	0.4999
Male	4598	0.4870	0.4999
White	4598	0.8960	0.3052
Minority ethnic	4598	0.0987	0.2983
Ethnicity_not known	4598	0.0052	0.0721
Severe disability	4598	0.1248	0.3306
Partial disability	4598	0.1046	0.3061
No disability	4598	0.7690	0.4215
Disability_not known	4598	0.0015	0.0390
Higher degree	4598	0.0931	0.2906
Bachelor degree	4598	0.1655	0.3717
Other HE / NVQ4 equivalent	4598	0.1085	0.3111
A level / NVQ3 equivalent	4598	0.1403	0.3473
NVQ2 or equivalent	4598	0.1596	0.3663
Low or no qualifications	4598	0.3056	0.4607
Other qualifications	4598	0.0274	0.1633
Permanent-contract full-time employee	4598	0.2462	0.4308
Other full-time employee	4598	0.0211	0.1437
Permanent-contract part-time employee	4598	0.0735	0.2610
Other part-time employee	4598	0.0261	0.1594
Self-employed	4598	0.0937	0.2915
Unemployed	4598	0.0426	0.2020
Retired	4598	0.3741	0.4839
Other economically inactive	4598	0.1227	0.3281
Main income earner	4598	0.7331	0.4424
Married	4598	0.6090	0.4880
Single	4598	0.3910	0.4880
Single parent	4598	0.0409	0.1981
Not single parent	4598	0.9071	0.2903
Parental status_not known	4598	0.0520	0.2220
House owned outright	4598	0.4069	0.4913

House mortgaged	4598	0.2007	0.4006
House rented	4598	0.3771	0.4847
Housing tenure_not known	4598	0.0152	0.1225
Social class A	4598	0.0298	0.1700
Social class B	4598	0.1688	0.3746
Social class C1	4598	0.2488	0.4324
Social class C2	4598	0.2086	0.4063
Social class D	4598	0.1548	0.3618
Social class E	4598	0.1892	0.3917
Internet access	4598	0.8375	0.3689
No internet access	4598	0.1625	0.3689
North East	4598	0.0437	0.2045
North West	4598	0.1157	0.3199
Yorks and Humberside	4598	0.0876	0.2828
East Midlands	4598	0.0789	0.2697
West Midlands	4598	0.0896	0.2856
Eastern	4598	0.0959	0.2945
London	4598	0.1211	0.3263
South East	4598	0.1396	0.3466
South West	4598	0.0833	0.2764
Wales	4598	0.0533	0.2246
Scotland	4598	0.0911	0.2878

Source: APLS 2017.

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