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The Contribution of Further Education  
and Skills to Social Mobility

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RESEARCH

# The contribution of Further Education and skills to social mobility

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# Glossary

<b>6MO</b>	Six Month Offer
<b>Absolute poverty</b>	Characterised by severe deprivation of basic human needs including safe drinking water, health and food; dependent on both access to services and income
<b>Absolute social mobility</b>	Where an individual can occupy a higher social position than their parents
<b>ALP</b>	Average labour productivity
<b>ALSPAC</b>	Avon Longitudinal Study of Parents and Children
<b>BIS</b>	Department for Business, Innovation and Skills
<b>BCS70</b>	1970 British Cohort Study
<b>BHPS</b>	British Household Panel Survey
<b>BME</b>	Black and minority ethnic
<b>BTEC</b>	Business and Technology Education Council qualification
<b>CAMSIS scale</b>	Occupational advantage generated from SOC codes
<b>CBL</b>	Classroom-based learning
<b>CEDEFOP</b>	European Centre for the Development of Vocational Education and Training
<b>Community Learning</b>	Community-based and outreach learning aimed at supporting localism, social justice, stronger families, digital inclusion and social mobility
<b>CSCS</b>	Construction Skills Certificate Scheme
<b>CVET</b>	Continuing Vocational Education and Training, part of lifelong learning
<b>DfE</b>	Department for Education
<b>DWP</b>	Department for Work and Pensions
<b>ELSA</b>	English Longitudinal Study of Ageing
<b>ESA (WRAG)</b>	Employment Support Allowance (Work-Related Activity Group)
<b>ESOL</b>	English for Speakers of Other Languages
<b>Experimental data</b>	New data made from administrative datasets and government data
<b>FE</b>	Further Education
<b>FEML</b>	Family English, Maths and Language, a strand of Community Learning
<b>Gini coefficient</b>	A representation of a nation's income distribution and so level of income (in)equality
<b>HE</b>	Higher Education
<b>HESA</b>	Higher Education Statistics Agency

<b>HMRC</b>	Her Majesty's Revenue and Customs
<b>ILR</b>	Individualised Learner Record
<b>IMD</b>	Index of Multiple Deprivation, a relative measure of deprivation comprising different dimensions, at small area level across England
<b>Intergenerational social mobility</b>	The extent to which parental success dictates that of their children
<b>Intragenerational social mobility</b>	The opportunity for an individual to enhance their own position in their working life
<b>ISCED</b>	International Standard Classification of Education
<b>JSA</b>	Jobseeker's Allowance
<b>KS3</b>	Key Stage 3
<b>LFS</b>	Labour Force Survey
<b>LLDD</b>	Learners with Learning Difficulties and/or Disabilities
<b>NCDS</b>	National Child Development Study
<b>NEET</b>	Not in education, employment or training
<b>NLDC</b>	Neighbourhood Learning in Deprived Communities, a strand of Community Learning
<b>Non-cognitive skills</b>	'Soft' skills encompassing attitudes and behaviours, often contrasted against 'hard' skills or ability in areas such as literacy and numeracy
<b>NPD</b>	National Pupil Database
<b>NVQ</b>	National Vocational Qualification
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OSH</b>	Occupational Safety and Health
<b>PCDL</b>	Personal and Community Development Learning, a strand of Community Learning
<b>Relative poverty</b>	As measured relative to a country's living standards
<b>Relative social mobility</b>	Where, regardless of initial socioeconomic status, individuals have an equal chance of ending up in particular social or economic positions
<b>RSA</b>	Royal Society of Arts qualification
<b>Self-efficacy</b>	An individual's belief they will achieve their own personal goals
<b>SOC</b>	Standard Occupational Classification
<b>Social mobility</b>	The movement of people through social strata
<b>UKCES</b>	The UK Commission for Employment and Skills
<b>Understanding Society</b>	The longitudinal survey which updates and expands BHPS
<b>VET</b>	Vocational Education and Training
<b>WBL</b>	Work-based learning
<b>WERS</b>	Workplace Employment Relations Study
<b>WFL</b>	Wider Family Learning, a strand of Community Learning

# Summary<sup>1</sup>

The review was commissioned by the Department for Business, Innovation and Skills (BIS) in order to synthesise recent evidence about the contribution of Further Education (FE) and skills to social mobility in England, or the movement of people through social strata. Within the scope of this research, Further Education (FE) and skills included adult learning from Entry Level through to Level 3 and encompassed Community Learning<sup>2</sup>, second chance provision including Access courses, some apprenticeships, training for benefit claimants and substantive skills training in the work place.

Improving UK performance on social mobility was a core policy objective of the 2010 – 2015 Coalition Government, and its progress on this was monitored by the Social Mobility and Child Poverty Commission using a set of indicators. The indicators reflect life stages and include a set relating to adulthood, focused on access to the professions, wage progression and achievement of Level 2 and 3 qualifications by adults aged over 19. This life stage approach is reflected in this report which presents evidence of direct impacts on learners, and indirectly on their children.

## The drivers of social mobility

The [drivers of social mobility](#) have been defined as factors that counteract patterns of advantage and disadvantage. They encompass improvements in income, employment and educational attainment. These drivers operate within a wider context of the structure of the labour market and the income distribution. Recently access to the professions, along with other labour market progression indicators, has been broadly flat and there appears to have been a fall in the number of adults accessing '[second chances](#)', as measured by the number achieving qualifications at Level 3.

There is a consensus in the literature that [higher levels of educational attainment or skills open-up access](#) to more education and training, and to higher level occupations and wages. However, several sources of evidence suggest a [low degree of intragenerational](#) mobility, especially for adults with low or no qualifications. Patterns of (dis)advantage tend to be replicated between generations, with individuals' life-chances strongly associated with the skills, occupation and earnings of their parents.

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<sup>1</sup> Please note underlined words are hyperlinks to take the reader directly to the correct corresponding evidence.

<sup>2</sup> Community-based and outreach learning aimed at supporting localism, social justice, stronger families, digital inclusion and social mobility

## Profile of FE learners

Over the last ten years, the [proportion of learners participating in FE and skills has increased in the most deprived areas](#). The proportion of adults participating in FE learning is highest in the fifth most deprived areas, as defined by the Index of Multiple Deprivation<sup>3</sup> (IMD). In 2013/14, 18 per cent of adults in the most deprived areas participated in FE learning, compared with 8 per cent of adults in the least deprived areas. The proportion of learners in the bottom two fifths of the IMD increased between 2004/05 and 2013/14, while the proportion from the upper three fifths decreased.

Since 2004/05 there has been an overall [increase in the proportion of learners studying at Levels 2 and 3](#), and a decrease in the proportion studying at Level 1 and Entry Level.

There is a [relationship between Level of qualifications and deprivation](#), with learners in the most deprived areas less likely than those in more affluent areas to study at Level 3. Specifically, 18 per cent of learners in the most deprived areas were studying at Level 3 compared with 31 per cent of learners in the least deprived areas. This pattern holds even when accounting for prior attainment levels.

## The contribution of skills to entry to work, in-work progression and earnings

The evidence shows that participation in training increases the likelihood of [permanent employment](#). Learners are less likely to claim benefits and spend less time on them after completing training. Some key factors contribute positively to employment outcomes including: the type of qualification being studied and the level of learning, whether the learning aim was achieved and gender.

There is a [positive relationship between the level of learning and employment outcomes](#): for individuals undertaking and completing higher level qualifications, the level of employment increased steadily. When considering different types of qualification the research found that achievement of apprenticeships is associated with high progression rates and sustained employment outcome rates. Other vocational qualifications, such as National Vocational Qualifications (NVQs) and City and Guilds qualifications also result in employment returns.

Employment, earnings returns and progression were affected by factors such as sector, subject, qualification Level and learners' age. However, the evidence regarding various types of qualification and the differing effect these can have on employment outcomes shows that the picture is more nuanced than averaged findings imply.

Returns to learning accrue within a labour market context and consequently, the structure of the labour market affects [earnings returns](#). Structural factors include the differences in average earnings between sectors, occupations, and regions. There are also earnings

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<sup>3</sup> A relative measure of deprivation comprising different dimensions, at small area level across England

differences evident in the labour market on the basis of personal characteristics, such as gender and age, alongside qualification levels. Earnings returns over the short to medium term are generally higher for young people aged under 25 than those aged 25 and over.

[Learning mode](#) has an effect on outcomes. There are greater earnings returns associated with the completion of vocational qualifications when undertaken through the workplace route as opposed to the classroom route, aside from where that learning is at Level 3<sup>4</sup> or Full Level 2. Despite prior research suggesting the same was true for into work returns<sup>5</sup>, recent research suggests that the picture is more mixed according to learning mode, with no clear trend emerging.

The outcomes of learning are dependent upon the qualification type. Research from several studies found that the lifetime benefits from the acquisition of [apprenticeships](#) at Level 2 and 3 are significant. As with other types of qualifications there were noticeable differences by apprenticeship framework. The same research shows that the lifetime benefits of Business and Technology Education Council ([BTEC](#)) and [City and Guild](#) qualifications are less although studies looking at City and Guild, BTEC and Royal Society of Arts (RSA) qualifications have used different comparison groups and therefore the returns to qualifications differ between studies. The evidence shows that on balance, [NVQs](#) provide positive earnings return for completers. However, the picture for low level NVQs is negative, with reasons for this suggested to include the age of the learner and timescale over which earnings were considered.

## The contribution of FE and skills to learning participation and progression

As with progression in employment or entry to work, progression in learning differs according to qualification type and subject area. Vocational qualifications such as [BTECs](#) which focus on providing learners with general transferable skills as opposed to occupational skills have the highest rates of learner progression, particularly to Higher Education. [Apprentices](#) in the areas of Engineering, Accountancy, and Health and Social Care have some of the highest rates of progression for this form of work-based training between qualification levels.

Progression in learning generally takes place in the short to medium term following course completion (ie 1-3 years later), and occurs for a large share of FE learners. Adult learners initially achieving Level 1 are more likely in the medium term than those achieving Entry Level qualifications to [progress](#) to qualifications at Level 2 or above. Learners who complete their original learning aim are more likely to progress to further learning. Data from learner surveys in a variety of educational settings consistently show that high proportions of adult learners attribute their progression in learning and their enthusiasm towards education in general towards a positive FE experience.

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<sup>4</sup> Comparison not available

<sup>5</sup> Rates of entry into work

## The contribution of FE and skills to learners' children

The review also considers the effect of FE learning and skills on learners' children. There is some evidence of an observable link between adult learning and the early years' development of learners' children, and a strong correlation between the parents' and child's cognitive ability. The effect of adult learning appears to make the largest contribution to the early years' development of children, with impact decreasing as the child gets older. Evaluations of some family learning programmes have found they make a largest contribution to learners from [disadvantaged groups](#).

## The wider benefits of FE and skills

There is evidence of several wider benefits and returns to FE and skills. Vocational education and training can have positive effects on productivity, benefit dependency, educational equality and [returns to the Exchequer](#). However, vocational education may have limited scope in challenging persistent income inequality.

[Wider benefits](#) that accrue at the individual level were explored within the evidence. Basic skills training, work-based learning and Community Learning all made positive contributions to how learners perceived and believed in their own skills, including literacy, numeracy, job-related and work-seeking skills. There was however limited evidence concerning proficiency gains. There was strong evidence that adult education bolsters confidence and self-esteem. Despite some varied findings concerning self-efficacy – self-belief that an individual will achieve their own personal goals or targets – effects here were also generally positive. Broadly, positive effects were also found for health and wellbeing outcomes of learners, although there were some exceptions when it came to particular measures and according to Level of learning or learner characteristic.

## The contribution of English and maths to social mobility

Consolidating the findings which relate to English and maths in adult FE, it is clear that such learning makes a contribution across the domains outlined above. It is associated with positive rates of [entry into work](#) which are nuanced, including higher rates of progression from higher level learning. There is less evidence around the contribution of English and maths to [progression once in work](#), although numeracy and literacy skills make an important contribution. Likewise, English and maths learners experience positive or neutral [wage premiums](#) when compared to non-achievers of the same qualification. In terms of [progression in learning](#), rates are higher from higher level learning.

There is some indicative evidence of the [wider societal benefits](#) that English and maths learning in adult FE brings, namely in terms of returns to the Exchequer, although the figures should perhaps be treated with caution. Such learning additionally supports [learners' families](#): high proportions of English and maths learners report they felt better able to support their children with home and school work than they had prior to learning. There are many wide ranging individual benefits associated, but a particular contribution is made to [mental wellbeing, confidence and self-esteem](#).



## Conclusions

There is evidence that FE and skills have a positive effect on seven of the social mobility indicators, six directly and one indirectly (Figure 1). Notably, it did not have a negative effect on any of the social mobility indicators. Researchers have focused on the direct contribution of FE and skills to learning and employment outcomes such as learning progression, entry to work, and earnings effects, which are some of the indicators used by the Government to measure progress relating to social mobility. The evidence suggests that FE and skills have a positive effect on the indicators noted above when qualification achievement is compared to either the position of non-completers or the relative position of individuals with lower level qualifications. Figure 2 shows how adult learning makes a positive contribution to greater social mobility and other outcomes such as returns to the Exchequer and levels of poverty. The scale of the effects and contribution will be mitigated by several contextual factors that relate to the labour market and to the individual. They include occupational structure, the income distribution, and personal characteristics such as age and gender, sector of work and occupation.

## Implications

Findings discussed in this report emphasise the wide-ranging and nuanced benefits that engaging in FE brings to individuals. The ways in which adults engaging in FE can benefit highlights its intersection with social mobility, although the scale of effect is qualified by contextual factors related to the labour market, the individual and their learning. Nonetheless, there remain some gaps in knowledge and evidence about the potential contribution of FE and skills, and what could be done to further enhance its positive effect. The findings of this review indicate areas for further research include:

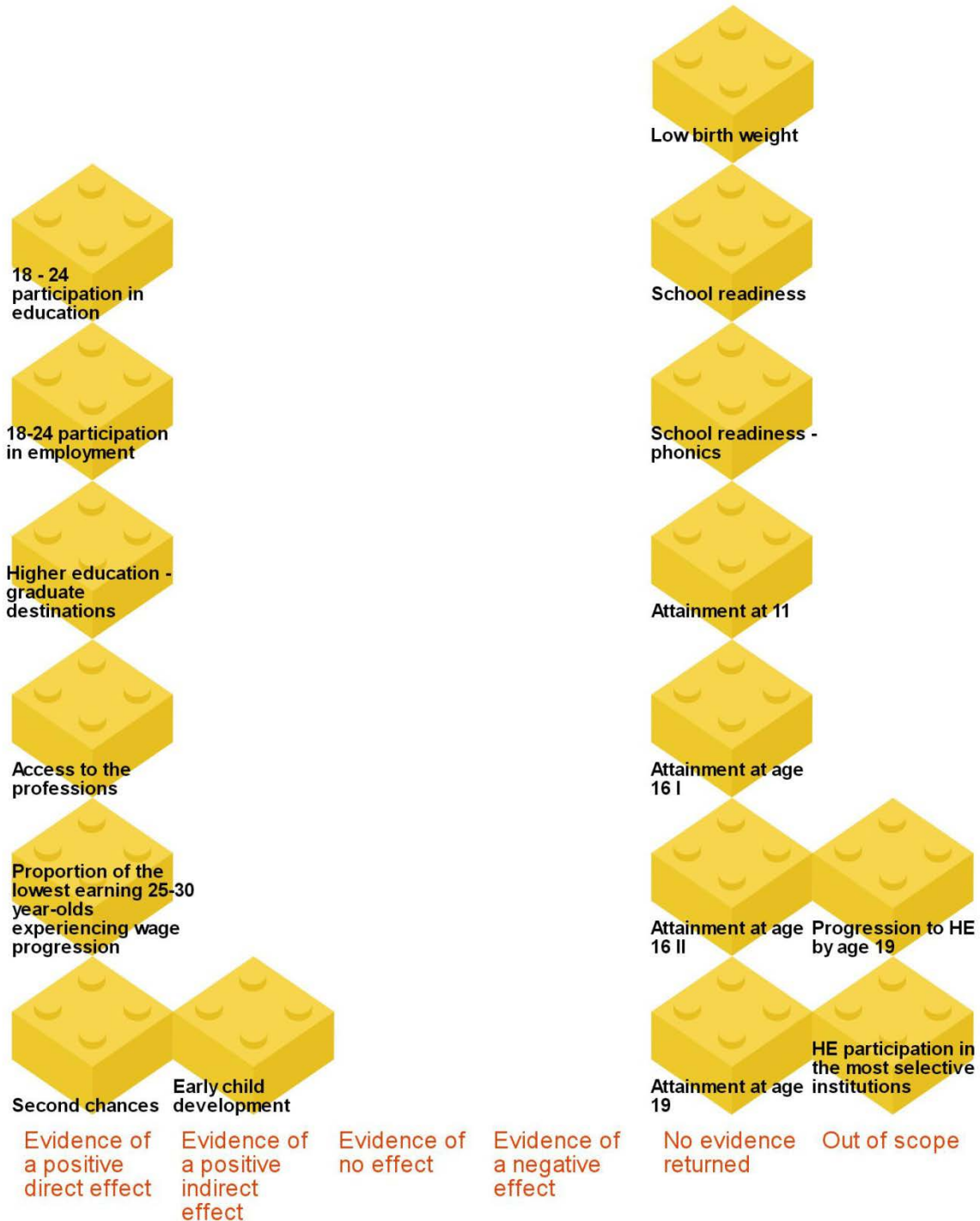
- The gap in evidence in respect of the **effects of adult participant in FE and skills on learners' children**, in particular on early years, later attainment and post-16 transition. Whilst the evidence indicates adult learning may impact on the cognitive development of children, there is little data on the ways in which adult FE may continue to have an effect on learners' children's participation status and work habits at an older age.
- Likewise, it is unclear **how FE and skills may improve deprivation or poverty at the household level** and over time. Further longitudinal analysis is needed to identify if there is an improvement in a household's financial situation after adult learning has been undertaken.
- The aims for this evidence review were focused on scoping the impact of FE and skills on social mobility. This led to the prioritisation of quantitative studies assessing impact, rather than qualitative studies exploring reasons. Due to this, there are limitations in terms of what can be said about the causes of the trends that emerge. Therefore, **an investigation of reasons for the observed patterns** present in the literature and possibly leveraging novel quantitative analysis would provide both a richer and fuller understanding of the ways in which the impacts of FE manifest. This

might include exploring the reasons why Level 3 learning is less likely to be pursued in less affluent areas.

- As above, the scope of this study constrained what can be said about measures to enhance the impact of FE. **A focus on how adult learning can be made a more powerful lever to increase social mobility**, with particular attention on improving outcomes, as well as what can be done to engage and support the most disadvantaged, will help to ensure they have full access to second chances. This would also facilitate a better understanding of the barriers to achievement that learners have faced, and what can be done to break these down.
- In addition, the evidence reviewed to date does not provide an assessment of the impact of progression in FE learning on social mobility. A study exploiting **administrative datasets** that track learners' progression through different types of provision and captures the outcomes associated with this could be considered. This would (potentially) enable any additive effect of progressive achievement in FE learning to emerge and could allow individual and household impacts on this basis to be examined. The new legislation to allow more extensive data linkage may enable such a study.
- **Further research considering labour market interaction, low skills and the contribution of FE** would also be of value. An initial review of evidence on this theme should be guided by terms of reference that focus on these specific themes in order to capture current assessments of the interaction and effects of these factors.

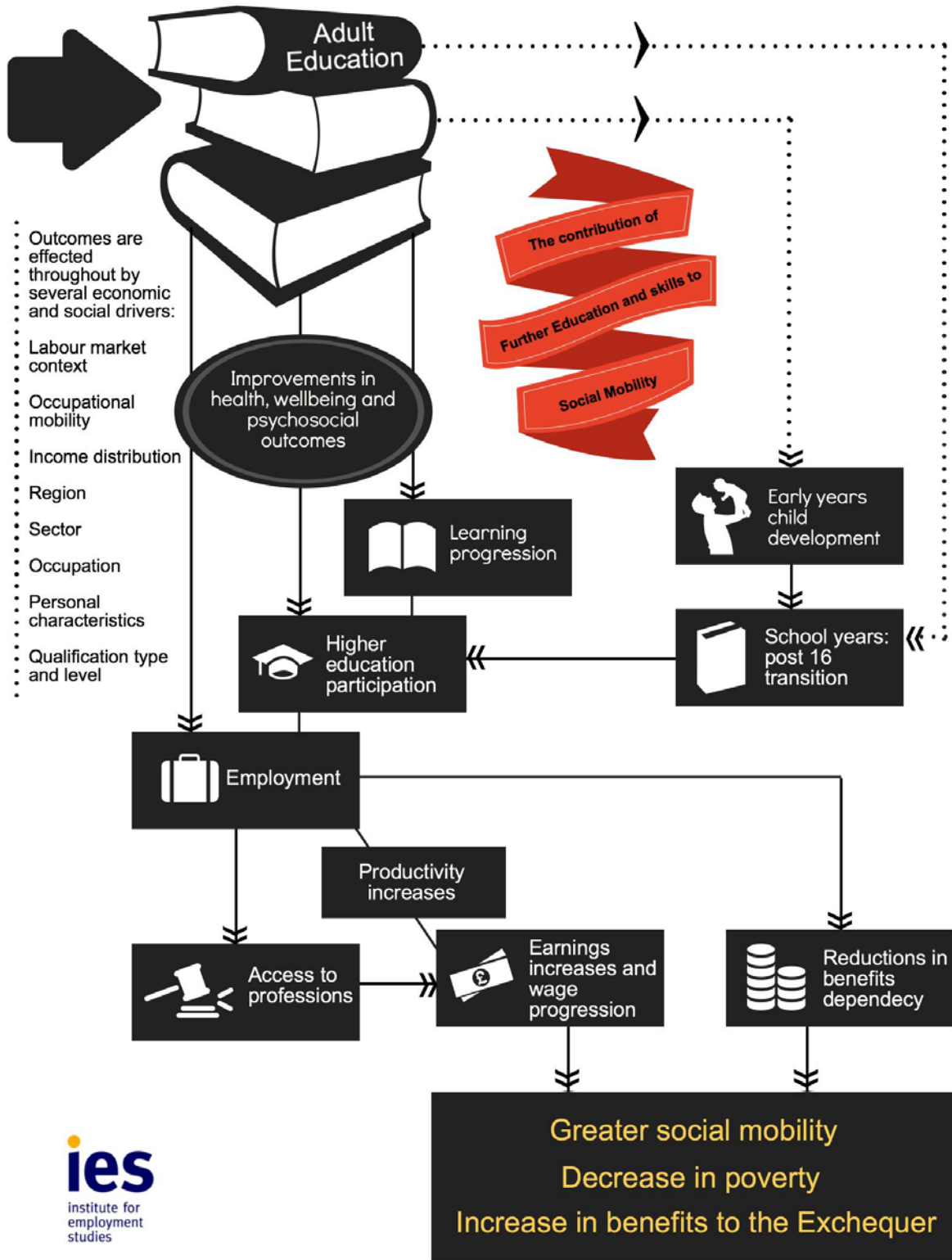


**Figure 1: Extent of evidence of the contribution of FE and skills to national social mobility indicators**



*NB: Attainment at 16 I refers to attainment at age 16 by free school mean eligibility; attainment at 16 II refers to attainment at age 16 by deprivation level of school*

**Figure 2: The contribution that Further Education and skills make to social mobility, poverty and returns to the Exchequer**



NB: Dotted lines denote indirect effects

# 1 Social mobility and FE participation in England

**Social mobility** is the **movement of people between social strata**, which may be intragenerational (throughout the course of one person's lifetime) or intergenerational (changes in social status between generations). Patterns of (dis)advantage are repeated across generations, as individuals' life chances strongly associate with the skills, occupation and earnings of their parents. This is measured using indicators which reflect life stages, including a set related to adulthood which focusses on access to the professions, wage progression and achievement of Level 2 and 3 qualifications at the age of 19 or older.

## 1.1 Key findings

- Recently, access to the professions and labour market progression among adults has been broadly flat and there appears to have been a fall in the number of adults accessing 'second chances', as measured by the number achieving qualifications at Level 3.
- Improvements in the income, employment and social position of adults can increase social mobility, but these factors operate within and are influenced by the wider structure of the labour market and the income distribution.
- Higher levels of educational attainment or skills tend to open up access to educational opportunities, higher level occupations and higher wages. Adults with low or no qualifications may be especially likely to experience lower social mobility. The proportion of adults participating in FE learning is highest in the most deprived quintile. In 2013/14, 18 per cent of adults in the most deprived areas participated in learning, compared to 8 per cent of adults in the least deprived areas.
- Over the last ten years, the proportion of learners participating in FE and skills has increased in the most deprived areas. The proportion of learners in the bottom forty per cent of the IMD increased between 2004/05 and 2013/14, while the proportion from the upper three quintiles decreased.
- Since 2004/05 there has been an overall increase in the proportion of learners studying at Levels 2 and 3, and a decrease in the proportion studying at Level 1 and Entry Level.
- There is a relationship between Level of qualifications and deprivation, with learners in the most deprived areas less likely than those in more affluent areas to study at Level 3. This holds even when prior qualifications are controlled for.

## 1.2 Introduction

Social mobility is the movement of people between social strata, defined by the Government as *‘the degree to which the patterns of disadvantage and advantage in one generation are passed on to the next’* (HM Government, 2011, p.11), ie where an individual’s life chances are not predetermined by the range of socio-economic barriers and facilitators presented to them at birth. While recognising the value in absolute social mobility, where citizens may have a higher social position than that of their parents, current policy is also focussed on relative social mobility. This latter definition looks at whether individuals, regardless of socio-economic status, have equal likelihoods of ending up in particular economic or employment positions. In addition, the extent to which parental success dictates that of their children (intergenerational mobility) is premised on the opportunity individuals have to enhance their own position in their working life (intragenerational mobility).

**Social mobility:** The movement of people through social stratum or socioeconomic positions

**Absolute social mobility:** Where an individual can occupy a higher social position than that of their parents

**Relative social mobility:** Where, regardless of initial socioeconomic status, an individual has an equal chance of ending up in particular social or economic positions

The policy rationale for promoting social mobility derives from both supporting ethical behaviour and economic rationality. From a perspective of equity, removing obstacles to social mobility should improve the range and level of opportunities for individuals in the labour market. From an efficiency perspective, it should reduce waste of human capital that can stem from individuals operating below their potential which can reduce individual motivation, individual and collective productivity and prospective economic growth (OECD, 2010). However, some commentators have countered this analysis and noted potential implications for the income distribution which may have to be narrowed, and in turn could reduce economic growth (see for example Crawford et al, 2011).

Improving UK performance in relation to social mobility is a core objective of Coalition Government policy, embodied in the principle of ‘fairness’ which is one of the three pillars in the Skills Strategy *Skills for Sustainable Growth* (BIS, 2010). The progress in improving social mobility across government is monitored by the Social Mobility and Child Poverty Commission in regular *State of the Nation* reports (eg Social Mobility and Child Poverty Commission, 2014).

Informed by the work of the Social Mobility and Child Poverty Commission the government has been active across a number of major strands of education and social policy to tackle social mobility. In particular, focus has been placed on early years, school, apprenticeships and higher education. However, measuring social mobility presents challenges, not least in that much of the relevant data is backward looking (Deputy Prime Minister’s Office, 2013). A set of leading indicators, designed to identify progress towards greater social mobility is

used to monitor wider trends (HM Government, 2011; Deputy Prime Minister's Office, 2013). The indicators reflect life stages, are reported annually in the *State of the Nation* and cover: foundation years (for example low birth weight, child development); school years (such as school attainment); transition years (for example employment and participation in education of 18-24 year olds, further education, higher education); and adulthood (such as access to the professions, wage progression and the achievement of Level 2 and 3 qualifications by adults aged over 19) (Deputy Prime Minister's Office, 2013).

Responsibility for these measures spans government departments and includes the BIS, the Department for Work and Pensions (DWP), and the Department for Education (DfE). The 2014 *State of the Nation* report made 12 key recommendations which focused on the *Early Years, School Years, Moving into the World of Work, Moving up the Income Ladder, and Accessing the Top Universities and Jobs*, although the measures primarily focused on providing opportunities for young people rather than giving working adults second chances, and therefore the impact that skills development can have on social mobility did not feature in the recommendations (Social Mobility and Child Poverty Commission, 2014).

### 1.2.1 Research aim

This project aims to synthesise recent evidence about the overall contribution that Further Education (FE) and skills make to social mobility in England. The review has been structured using an analytic framework that draws on the government's social mobility indicators and uses a similar life-cycle approach (see Annex Table 17). The study therefore sought evidence of the direct contribution that FE and skills make to learners, for example in terms of their earning and progression in work, but also of indirect effects, such as impact on the children and households of FE learners. In addition, the wider benefits of FE and skills that contribute to social mobility, such as impact on health and social inclusion, were also in scope.

### 1.2.2 Overview of method

This report brings together evidence from three methodological strands:

- A rapid review of the research evidence relating to the contribution of FE and skills to social mobility.
- Analysis of the Individualised Learner Record (ILR) which has been matched to the Index of Multiple Deprivation (IMD) to examine the profile of FE learners and how this has changed between two points in time (2004/5 and 2013/14).
- Multivariate analysis of the British Household Panel Survey/Understanding Society (years) to identify whether having acquired a qualification through adult learning in FE or having undertaken non-formal adult learning mediates the relationship between parental socio-economic class background and level of parental education, and respondents' own socio-economic class position (measured through occupational status and National Statistics Socio-Economic Classification (NS-SEC) at a given point in time.



Full detail of the methodology is provided in the Annex.

### 1.3 Social mobility trends and drivers

The drivers of social mobility have been defined as those factors that tackle the ‘*opportunity deficit*’ and counteract patterns of advantage and disadvantage (HM Government, 2011). Firstly, they encompass improvements in the income, employment and social position of adults, which contribute to improving the early years, educational and socioeconomic outcomes of their children. Additionally, they include improvements in the provision of, attainment in and access to education (HM Government, 2011; Social Mobility and Child Poverty Commission 2013 and 2014).

Although all are crucial to the contribution of skills to social mobility, the most recent Social Mobility and Child Poverty Commission report noted there was insufficient data to ascertain trends in the proportions of the lowest-earning 20 per cent of individuals experiencing wage progression over a decade (Social Mobility and Child Poverty Commission, 2014). ‘Second chancers’ were defined according to the Government’s social mobility indicators as adults achieving a Level 2 or 3 qualification at age 19 or older. Although there are comparability issues with data over longer periods, from 2008-09 to 2010-11 trends in the achievement of both levels of qualifications show an increase. However, from 2011-12 to 2012-13, although the Level 2 trend remained positive, attainment of Level 3 qualifications by second chancers decreased from 216,200 to 201,700 (Social Mobility and Child Poverty Commission, 2014). The authors therefore state that *‘in adulthood, the access to the professions and labour market progression indicators have been broadly flat and there appears to have been a fall in the number of adults accessing ‘second chances’ driven by a fall in the number of adults achieving qualifications at Level 3’* (Social Mobility and Child Poverty Commission, 2014, p.10). Given the contribution that this indicator makes to labour market progression throughout adulthood – including employment rates and earnings returns – such a decline is likely to be significant to the proportion of people afforded a second chance to succeed. It is of note that aside from this measure, there is scant reference to adult FE learning and an emphasis on ‘traditional’ progression routes. More broadly, the report states there are (slowly) narrowing gaps of disadvantage and the outcomes of children from poorer backgrounds are showing signs of improvement.

### 1.4 Intragenerational mobility

**Intragenerational mobility:** The opportunity for an individual to enhance their own position within their working life

There is consensus across the literature that possessing a higher level of educational attainment or skills opens-up access to more education and training, as well as to better occupations and wages. This circumstance has been referred to in several sources as the ‘Matthew effect’, where advantage or prestige leads to further advantage (Merton 1968, cited in CEDEFOP 2011a; McMullin and Kilpi-Jakonen, 2014). Exemplifying this on a cross-country level, the Organisation for Economic Co-operation and Development (OECD, 2013) reported aggregate findings of their Survey of Adult Skills. Individuals

scoring Level 4 or 5 in a literacy assessment received a 60 per cent greater median hourly wage compared to those scoring Level 1 or below. Also twice as likely to be unemployed, the latter cohort had little access to ICT, basic services or rewarding work, although the unemployment rates in the OECD's sample were somewhat different to the wider population (OECD, 2013). Furthermore, the Level 4-5 cohort was more likely to report good health, trust and greater civic and voluntary participation (OECD 2013, p.7). Non-cognitive skills<sup>6</sup> are arguably more tangential to social mobility. However, one source in Crawford et al (2011) found the value of such skills had risen over time, meaning those with lower non-cognitive skills, such as time management, team-working and leadership skills, were now more economically disadvantaged (Blanden et al cited in Crawford et al, 2011).

Several papers investigated the possibility of upgrading skills over time and explored the implications for social mobility. They suggested there was low intragenerational mobility, especially at the bottom of the skills distribution. De Coulon et al (2011) looked at the change in individuals' literacy and numeracy scores between ages 5 and 34 through the British Cohort Study (BCS70). The most movement was found in both directions amongst the middle three-fifths of the cohort, but the least was seen in the lowest-scoring 20 per cent where at age 34, 43 per cent of individuals remained in the same position in the distribution as at age 5 (de Coulon et al, 2011). This is reinforced by Crawford et al (2011) who noted: *'investing in individuals with only very low levels of skill will be costly, and... achieving gains in their cognitive skills in particular will be difficult'* (Crawford et al, 2011, p.1). Despite this apparent lack of mobility for the lowest skilled, elsewhere in the literature Vorhaus et al (2011) concluded that there was growing evidence that gaining literacy and numeracy skills (but not necessarily qualifications) in adulthood positively affected earnings and employment (Vorhaus, 2011).

The potential impact of successful upskilling was considered in Taylor et al's (2012) report. It reviewed a) Labour's Ambition for 2020 (90 per cent of the population qualified to Level 2, more than 40 per cent to Level 4) and b) The UK Commission for Employment and Skills' (UKCES) projection that the upper Level 4 target would be met, but not the Level 2 target. The impact of these two scenarios on absolute<sup>7</sup> and relative<sup>8</sup> poverty was then investigated. The Ambition was predicted to decrease relative poverty by one percentage point, whilst UKCES' prediction was thought to do so by 0.8 percentage points (Taylor et al 2012). Crawford et al (2011) agreed such wage compression was the route to improved social mobility but argued that features of the UK labour market limited the ability of policy measures to be effective (Crawford et al, 2011).

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<sup>6</sup> 'Soft' skills encompassing attitudes and behaviours, often contrasted against 'hard' skills or ability in areas such as literacy and numeracy

<sup>7</sup> Characterised by severe deprivation of basic human needs including safe drinking water, health and food; dependent on both access to services and income

<sup>8</sup> As measured relative to a country's living standards

## 1.5 Intergenerational mobility

**Intergenerational mobility:** The extent to which parental success dictates that of their children

Parental skills, occupation and earnings were also seen as important in many sources for explaining an individual's life chances. Analysis of BCS70 was reported by Marcenaro-Gutierrez et al (2014), who compared the socio-economic status of 42-year olds with that of their parents 30 years previously. This was then additionally related to help received from family and social networks. Although recognising the markedly changed job market, strong associations were found: 70 per cent of individuals with professionally employed parents were themselves in such roles or lower management positions at age 33 (Blanden et al 2013 cited in Marcenaro-Gutierrez et al, 2014). Furthermore – with the caveat that help received was self-reported and may not be accurately recalled from years previously – men were more like to report receiving support from networks to find work, such as advice about job search, and introductions to vacant positions (Marcenaro-Gutierrez et al 2014). In addition, 64 per cent of the top earning cohort (£250 or more per week) reported receiving help, compared to 34 per cent of the lowest earners (under £50 per week), but the type of help received did not differ notably between socio-economic groups (ibid.).

Further examples of how this transfer of advantage may manifest and be disrupted are found in two evidence reviews (Vorhaus et al, 2011; and Myers et al, 2014). Williams et al's analysis of the 2003 Skills for Life survey found that adults with lower literacy and numeracy had greater concerns than others in their ability to support their children with reading, writing and arithmetic, *'thereby potentially creating wider impacts on the next generation of young learners'* (Williams et al 2003, cited in Vorhaus et al 2011, p.130). It is relevant here that the OECD's (2013) Survey of Adult Skills report stated that the UK was one of the countries where social background has the comparably largest impact, where *'the children of parents with low levels of education have significantly lower proficiency than those whose parents have higher levels of education, even after taking other factors into account'* (OECD 2013, p.10). The comparison between the United States, Canada, Australia and the UK by the Sutton Trust found likewise, with the UK performing poorly in terms of cumulative advantage (Sutton Trust, 2012). The second evidence review, reported the findings of an analysis of responses from 18,715 young people (aged 16-18) with low qualified parents from the Family Resource Survey (1994-2002). For each additional year of parental education, the likelihood of children remaining in school past compulsory schooling age increased by four to eight per cent after controlling for certain factors (Chevalier et al 2004, cited in Myers et al 2014).

An important factor of wage and occupational persistence across generations is driven by the effect of parental background on cognitive skills acquired by children in formal or informal education (which in turns influences their productivity, employability and so on). This includes secondary education and post-secondary education. Studies show that there is a clear connection between intergenerational wage mobility and intergenerational educational mobility, although educational mobility cannot account for all estimated persistence in incomes across generations (cf Blanden, 2009, Blanden et al, 2005 and Solon, 2004). The question of how strongly educational achievement is tied to family



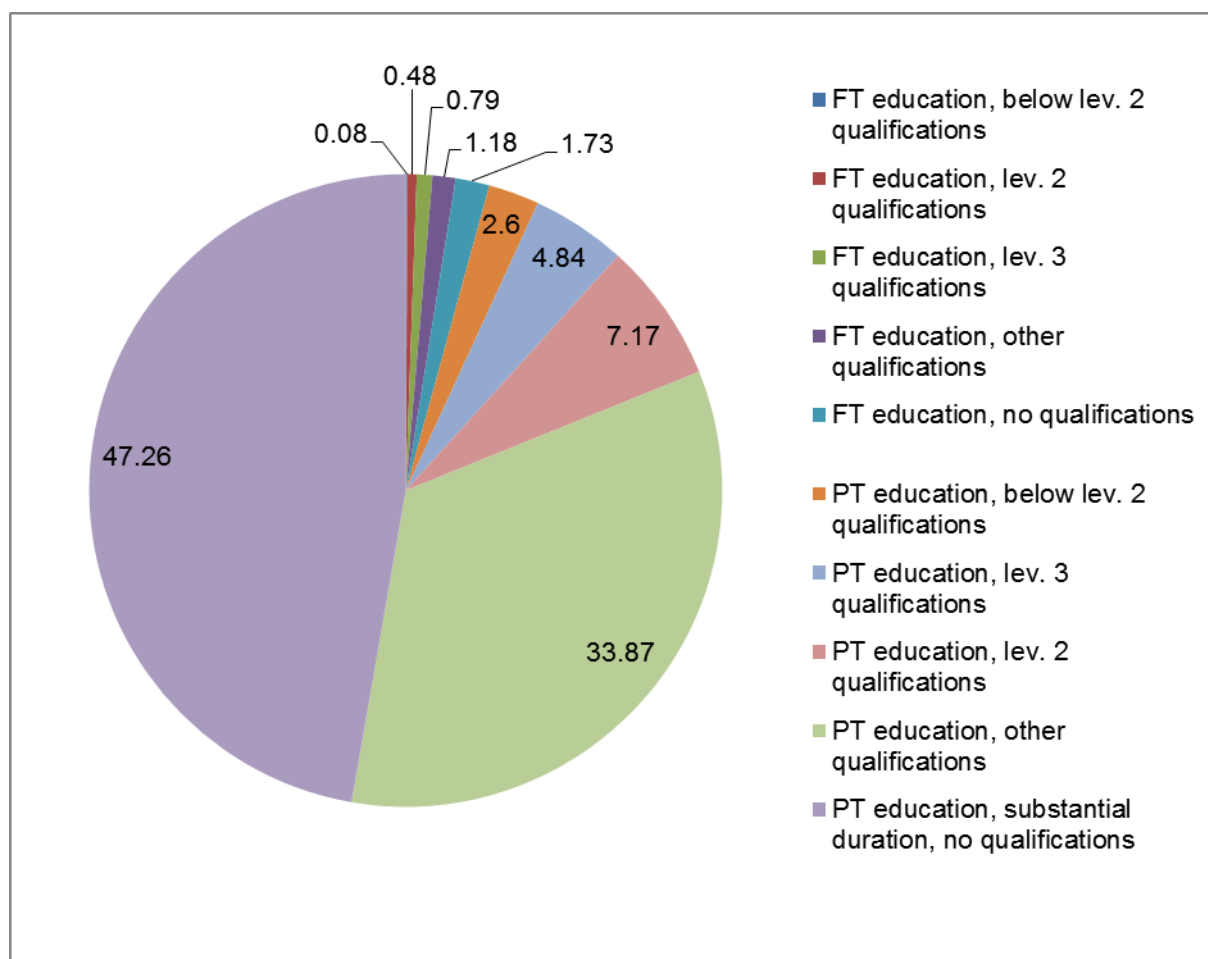
background is crucial in understanding intergenerational social mobility; indeed, this is a key mechanism through which wage persistence is transmitted across generations. Inequalities in cognitive skills as well as financial constraints, lack of appropriate educational opportunities, family support and social capital acquired in secondary education translate in inequalities in achieving post-secondary education and into wages via the returns to education the labour market.

### **1.5.1 Intergenerational social mobility explored through the British Household Panel Survey (BHPS)/Understanding Society**

The analysis of the British Household Panel Survey (BHPS) and of its successor, Understanding Society, which has been undertaken for this review focuses on assessing the influence of parental background, as measured by the educational achievement of parents when the survey respondent was aged 14, on their economic activity status and occupational positions as adults. It explores whether participation in adult education can offer 'second chances' to learners that may have encountered barriers in attainment and education participation during their school years, and whether participation in adult learning mitigates the relationship between parental background and an individual's own socio-economic status. (For further details of the methodology deployed see the Annex).

Focusing on individuals aged 19 plus, the analysis considered whether survey participants had undertaken any adult learning in the year prior to the interview, for each year in which they appeared in the sample. Episodes of learning in scope for the analysis were all those leading to a qualification (either below Level 2, at Level 2 or at Level 3), either full-time or part-time, as well as episodes of learning not leading to a qualification but of substantial duration (defined as at least 21 hours, or 5 days, or a week in duration). For the purpose of this analysis, in those cases in which individuals had undertaken multiple episodes of adult learning in a given year, only the most substantial learning episode is considered (ie either the longest or the one leading to the highest level of qualification).

Figure 3 below (see also Table 20 in Appendix) shows the distribution of learning episodes across different categories of learning for the whole period covered by our dataset (1998-2012).

**Figure 3: Adult learning episodes by type**

Source: BHPS wave 8 – 21

The largest proportion of adult learning episodes in the sample was in the category ‘part-time education not leading to qualifications’ (47.3 per cent), followed by ‘part-time education leading to other vocational or professional qualifications’ (33.9 per cent). In all likelihood, these two categories of adult learning captured instances of training funded by employers or leading to minor professional or vocational qualifications that do not correspond neatly to the Qualifications and Credit Framework (QCF) classification. Episodes of part-time education leading to qualifications at Level 2 and 3 were less widespread (7.1 per cent and 4.8 per cent of learning episodes respectively). Only 4.26 per cent of adult learning episodes referred to instances of full-time education, with 1.7 of these not leading to any qualifications.

Table 1 below shows the number of individual learning spells per wave distributed for each year within our panel (waves 8 to 21 of BHPS, covering the period 1998 – 2012). A full breakdown of the same data by typology of adult learning episode is reported in Table 21 in the Annex.

**Table 1: Number of adult learning episodes by wave**

Wave of BHPS interview															
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
<b>N. of learning spells per wave</b>	1,058	1,004	1,131	1,010	835	884	920	853	746	739	640	849	664	493	11,826

Source: BHPS wave 8 – 21

The number of learning spells decreased slightly each year, leading to a substantial decrease between the starting and endpoints of the analysis such that 1,058 learning episodes were observed in 1998 (wave 8) which dropped to 493 in 2012 (wave 21). However, this was largely due to attrition over the successive survey waves that caused a decrease in the overall sample size. It is also important to note a gap in the data: no adult learning spells were recorded in 2009, as this was the first year that Understanding Society was undertaken and the BHPS sample was not included. Hence, there is, in effect, a two year gap between data for waves 18 and 19.

The number of individuals with at least one episode of adult learning at level 3 or below in our sample is 5,147, distributed across the successive waves. This includes all individuals aged 19 plus, regardless of their prior qualification level. Table 2 shows the distribution of 'first' episodes of learning across successive survey waves. Unsurprisingly, this also decreases over time (from 1,058 in wave 8 - 1998 to 118 in wave 21 - 2012).

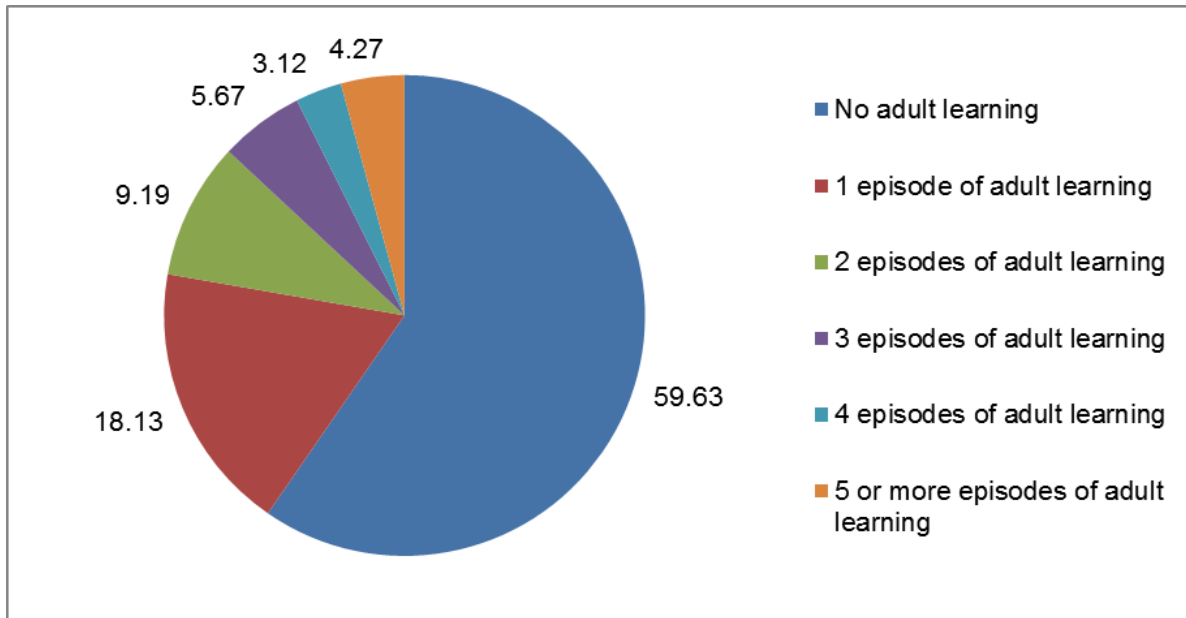
**Table 2: First individual episodes of adult learning, by wave**

Wave of BHPS interview															
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
<b>N. of first episodes of adult learning</b>	1,058	641	614	438	329	344	318	284	237	242	171	270	176	118	

Source: BHPS wave 8 – 21

The frequency distribution of the number of learning spells per individual in the sample (Figure 4 below, Table 22 in Appendix) shows that 40.3 per cent of the sample undertook some adult learning at level 3 or below at some point over the period 1998 – 2012.

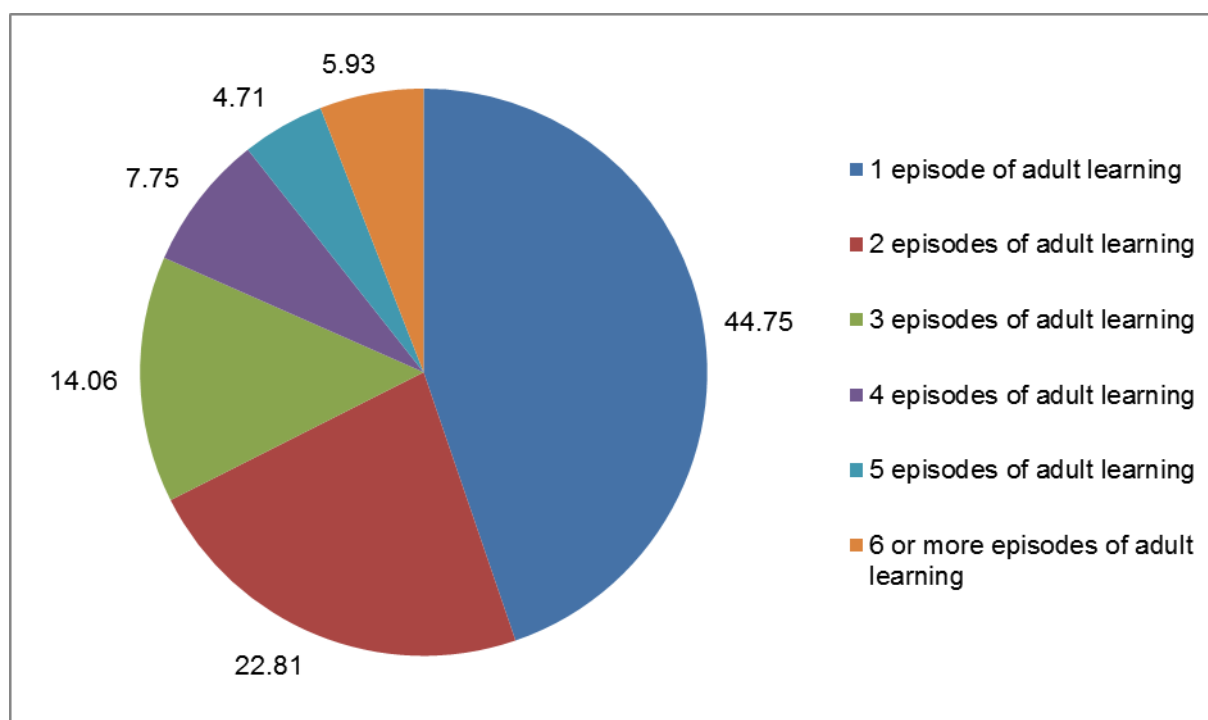
**Figure 4: Number of episodes of adult learning per individual, 1998 – 2012**



Source: BHPS wave 8 – 21

Amongst individuals with at least one episode of adult learning, 44.7 per cent had one learning spell; 22.8 per cent had two spells; 14 per cent had three learning spells; 7.7 per cent had four spells; 4.7 per cent had five spells and 5.9 per cent had more than five spells over the time period (Figure 5 below, Table 23 in Appendix).

**Figure 5: Number of episodes of adult learning per individual for individuals with at least one learning spell, 1998 – 2012**

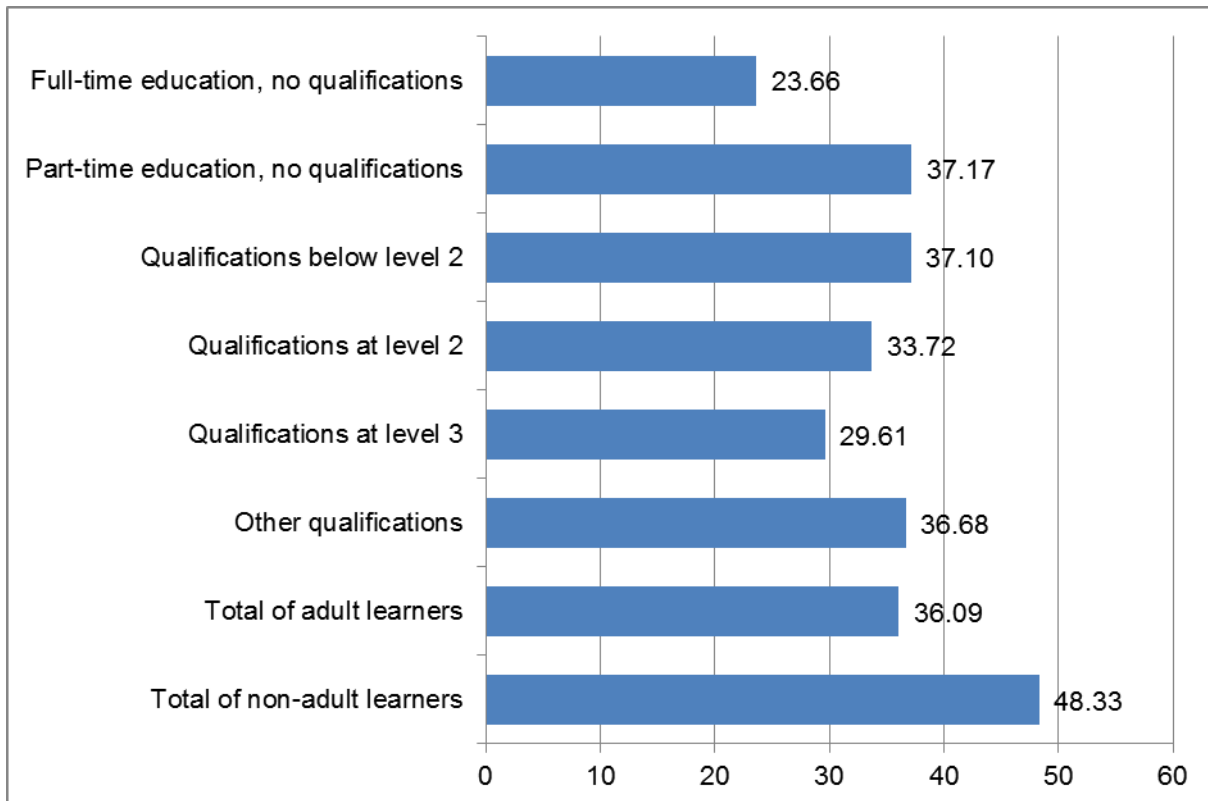


Source: BHPS wave 8 – 21

### 1.5.2 Demographic profile of ‘first episode’ adult learners

As shown in Figure 6 below, the average age of adult learners at the time of their first learning episode was 36.1 years (the median being 34), compared to 48.3 years (47 median) for individuals who did not partake in adult learning. This difference is statistically significant at the 0.01 confidence level. In general, the age profile of first-time adult learners undertaking full-time education was younger (with an average age of 20.9 years for adult learners undertaking full-time education leading to Level 3 and of 26.7 years for those undertaking full-time education leading to Level 2 qualifications), whilst those undertaking part-time education had an average age of around 37 years. However, those who had achieved qualifications at Level 2 or 3 through part-time learning also tended to be younger. A full breakdown of age profile by type of learning is available in Table 24 in the Appendix.

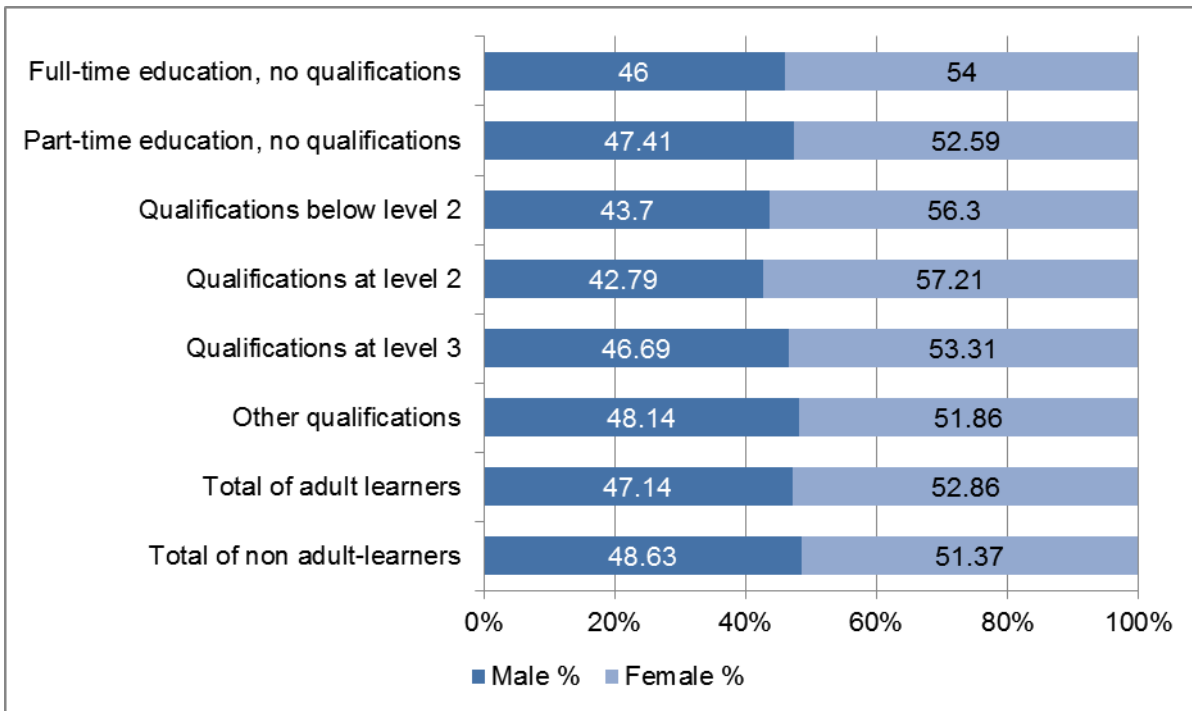
**Figure 6: Average age of adult learners at first learning episode, by learning type, compared to non-adult learners**



Source: BHPS wave 8 – 21

The overall gender distribution in this sample of adult learners appears to slightly over-represent women (Figure 7, Table 25 in Annex): 52.8 per cent of ‘first time’ adult learners across all types of learning are women, compared to 51.3 per cent of non-adult learners, with the difference between the two groups being significant at the 0.1 confidence level. The gender distribution, however, varies across different types of learning.

**Figure 7: Gender distribution of adult learners, by learning type compared to non-adult learners**

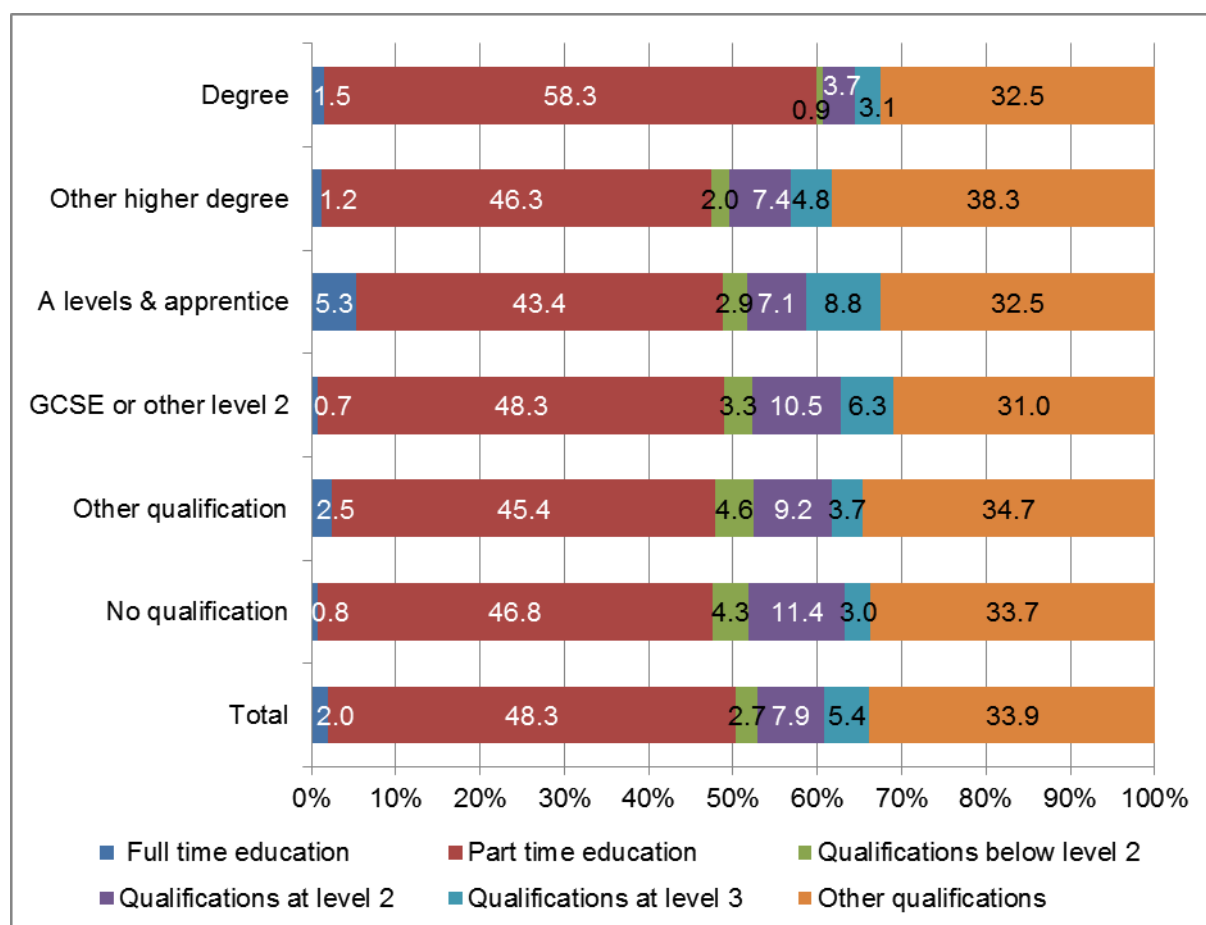


Source: BHPS waves 8 -21

The regional distribution of first episodes of adult learning did not differ significantly from the overall regional distribution of the sample (Table 26 in Annex).

Figure 8 below (Table 27 in Appendix) shows the distribution of first episodes of adult learning broken down by the qualification level of individuals in the year prior to the learning occurrence, for those individuals where this information was available.

**Figure 8: Distribution of adult learning episodes by type and prior highest qualification held**



Source: BHPS waves 8 -21

The chart shows that, for this sample, individuals with a degree were more likely than all other groups to undertake part-time education not leading to qualifications, whilst individuals with other higher qualifications (including teaching, nursing and other professional qualifications at level 4 or above) were the most likely to have obtained 'other qualifications' through adult learning. Individuals with qualifications at level 3 were the most likely to have undertaken full-time education the following year, whilst those with no qualifications were comparatively more likely to have obtained qualifications below or at level 2 through adult learning.

### 1.5.3 Second chance learning

Data from waves 8 to 21 of BHPS was used to undertake econometric analysis which explored whether participation in adult education can offer 'second chances' to learners who may have encountered barriers in attainment and education participation during their school years, by mitigating the relationship between parental background and respondents' socio-economic status, as measured by individuals' occupational status. Several regression models were constructed to measure the effect of various characteristics (including parental background and participation in adult learning) on



individuals' chances of belonging to a specific socio-economic group, as measured by individuals' own occupation. Full details of the methodology are available in the Annex. In carrying out these estimates, a focus was placed on the first episode of adult learning undertaken by each individual, because this was considered to be the most significant in opening up 'second chances' and creating avenues for further progression in learning and work. However, this approach was subject to some considerable limitations, since the first observed episode of learning is not always the most substantial (in terms of duration and/or level of qualifications achieved) for those individuals with multiple episodes of learning. Consequently, this analysis may underestimate the impact of training participation on employment and occupational status, or over-estimate the impact of the 'first' episode of adult learning for those individuals who then proceed to undertake multiple learning spells. The best proxy available in the data for individuals' parental background was the level of parental education when the respondent was aged 14. This information was available for 6,357 individuals relating paternal education and for 6,573 individuals relating to maternal education.

The first set of models (Table 28 in the Annex) considers the likelihood of participating in adult learning at time  $t$ , in which  $t$  indicates the first time in the panel in which an individual undertook adult learning. For those individuals who did not undertake adult learning at any point in the panel, time  $t$  was assigned randomly. The models in Table 28 include all individuals aged 19 or above at time  $t$ , regardless of prior qualification levels, and controls for a range of personal characteristics, such as: gender; age; employment status; paternal and maternal education; whether the respondent had children; and, in model 2, for the highest qualification held in the year prior to undertaking adult learning.

The results (Table 28 in the Annex) suggest that the likelihood of undertaking adult learning is significantly correlated with gender (women are more likely to undertake adult learning), age, and employment status (with those inactive or in full-time education being considerably less likely than those in employment to undertake the type of adult learning in scope). Paternal education appears to be significantly correlated with the odds of undertaking adult learning: individuals with fathers educated below level 3 are significantly less likely to participate in adult learning with reference to those with fathers educated at degree level. However, this relationship is no longer statistically significant when a variable for own education is included, suggesting that the effect of paternal education on participation in adult learning is mediated by individuals' own educational attainment.

Considering own educational attainment, the analysis shows that all groups with education at Level 3 or below are significantly less likely than those with degrees to undertake adult learning, whilst individuals with other professional qualifications at Level 4 or 5 are significantly more likely to undertake adult learning.

For those individuals in employment, a separate model was also estimated (not reported here) that found that occupational category did not have any significant effect on individual's odds of participating in adult learning at time  $t$ .

Since the main demographic of interest for this study were adults qualified at Level 3 or below, Table 29 in the Annex reports the results of the same model, but focusing on a sub-sample which included only individuals qualified at Level 3 or below at  $t-1$ , thus excluding

everyone with qualifications at Level 4 or above. The pattern of results is similar to those above in respect of the effect of gender, age and employment status on likelihood of participating in adult learning. However, the effects of the level of paternal education on the likelihood of participation in adult learning for this demographic were not statistically significant, with the exception of the category ‘father educated at Level 3’. On the other hand, the effect of own education was highly significant: already holding qualifications at any level (below Level 2, at Level 2 and Level 3) dramatically increased the chances of an individual undertaking adult learning.

Overall, these results suggest that, in line with the concept of the ‘Matthew effect’ identified elsewhere in the literature, those who have higher likelihood of accessing adult learning opportunities are not the most disadvantaged individuals in terms of prior educational attainment.

#### 1.5.4 Adult learning and intergenerational mobility

To assess the impact of adult learning on intergenerational mobility, first a model was estimated which considered the impact of a set of variables on individuals’ occupational status in a given year (time  $t$ ), including level of paternal and maternal education. Following this, the model was repeated using as outcome variable the occupational status of individuals at time  $t+1$  and  $t+5$ , and included a variable for participation in adult learning at time  $t$  (which corresponded to the wave in which the first episode of adult learning was observed). In this way, it was possible to take advantage of the longitudinal data to observe whether participation in adult learning (with ‘not having participated in adult learning’ as a reference category) had an impact on individuals’ occupational status one and five years after learning occurrence, and whether it mediates the relationship between individuals’ occupational status and their parental educational background. In all models, highest educational attainment in the year prior to adult learning occurrence was controlled for, as well as gender, age, number of children, as well as level of paternal education when the respondent was aged 14. Given that the focus of this study was on individuals with lower levels of qualifications, as in the previous model, the estimates excluded all of those who held qualifications at level 4 or above in the year prior to undertaking adult learning.

Table 30 (in the Annex) shows the results of a series of four estimates<sup>9</sup> (Models 1, 2, 3 and 4). In Model 1 and 2 the dependent variable is occupational status at time 0, with individuals in ‘partly skilled or unskilled occupations’ providing the reference category. All models controlled for gender, age, age squared, as well as number of dependent children.

Model 1 explores the effect of paternal education on individuals’ occupational status (measured through a compressed version of the Registrar’s General social class classification). The extent to which an individual’s occupational or socio-economic status is determined or affected by his or her parental background can be considered as a proxy for the degree of inter-generational social mobility.

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<sup>9</sup> These estimates are based on multinomial logistic regression models which allow for more than one discrete outcome variable to be explored relative to a dependent variable

This model indicates that paternal education is highly correlated with an individual's occupational group. As expected, based on previous evidence, having a father educated at degree level (in comparison to having a father who does not possess qualifications) significantly increases the chances of an individual being employed in a professional occupation or in a managerial and technical occupation (rather than working in a partly skilled or unskilled occupation, which is the reference category for this analysis). The same effect (albeit less strong) also applies for individuals whose father was educated at Level 3 or Level 2. Having a father educated at higher levels also has positive (albeit weaker) effects on individuals' chances of being in a non-manual skilled occupation, whilst the effects on individuals' chances of being in a manual skilled occupation are positive but not statistically significant.

In Model 2, we introduce a variable which measures individuals' highest qualification at time  $t-1$  (bearing in mind that the model only includes individuals with prior qualifications at Level 3 or below). As expected, holding qualifications at Level 3 dramatically increases individual's probability of being in a professional occupation, whilst holding qualifications at Level 2 or below does not have a significant effect in this respect. Having any prior qualifications also significantly increases probabilities of working in a managerial or technical occupation, non-manual skilled occupations and manual skilled occupations (in comparison to being in a partly skilled or unskilled occupation).

The strength of the effect increases with qualification level and is of greater magnitude for 'higher' occupational categories. The model also shows that the effect of parental education becomes smaller when a control for an individual's own education is introduced, suggesting that the impact of parental background on individual's occupational status is mediated by individuals' own educational attainment. However, it can be seen that in the case of professional occupations and managerial and technical occupations, the impact of paternal education remains significant even when individuals' highest qualifications are controlled for, which suggests a certain persistence of inter-generational advantage (or disadvantage) in individuals' chances of being in comparatively 'higher status' occupations.

In Models 3 and 4, the impact of participation in adult learning on this dynamic is considered. The outcome variable in the two models is occupational status at time  $t+1$ , i.e. a year after the occurrence of the first episode of adult learning. In this analysis, a variable was introduced which captures participation in adult learning at time 0 (with reference category being those individuals who did not participate in adult learning). Model 3 measures the impact of participation in adult learning on occupational status a year later, controlling for paternal education but without controlling for individuals' prior qualification levels, whilst Model 4 introduces controls for individuals' prior qualification levels. The reference category for the dependent variable is still that of individuals in partly skilled or unskilled occupations.

The results of the effect of adult learning on individual's occupational status one year after learning occurrence, as measured, are not particularly clear. Participating in substantial learning (not leading to qualifications) increases the probability of working in a professional occupation or in a managerial or technical occupation, but these effects are no longer significant when individuals' own prior qualifications are controlled for. Interestingly, it

appears that acquiring a qualification below Level 2 significantly decreases individuals' probability of working in a managerial or technical occupation a year later, an effect which remains significant even when controlling for prior qualifications. However, this is likely to be a case of reverse causation (i.e. individuals who do acquire a qualification below Level 2 through adult learning are less likely to be in a managerial or technical occupation to begin with, as they are likely to be those with the lowest levels of prior qualifications or educational attainment).

The effect of paternal education on occupational status at t+1 is generally reduced in relation to the corresponding baseline model when controlling for participation in adult learning. This suggests that there is a mediating effect (thus indicating a positive dynamic in terms of encouraging inter-generational social mobility), although the results do not indicate a clear or completely unambiguous pattern in this respect. Overall, it appears that one year after participation in adult learning may be too early to observe any clear effects arising from learning participation.

The next set of results considers impacts some five years after the first incidence of adult learning. Table 31 in the Annex reports the results of the same estimation model as Models 3 and 4 respectively, but with the dependent variable as occupational status at time t+5 (i.e. five years after the first observed episode of adult learning). This shows that, when considering outcomes five years after the first incidence of adult learning, the impact of participation on individuals' occupational status (as opposed to not having ever taken part) emerges as stronger and, in many cases, statistically significant.

Model 5, like Model 3, includes participation in adult learning at time 0 as an explanatory variable, and also includes a term for paternal education, but without controlling for individuals' own qualification levels. Participation in adult learning not leading to qualifications, acquisition of qualifications at level 3 or of 'other' qualifications significantly increases the probability of being in a professional occupation. This effect remains significant and becomes even stronger when controlling for individuals' prior qualification levels (Model 6), suggesting a distinct effect of participation in adult learning on individuals' occupational status for this category. Important for this analysis of inter-generational social mobility, the impact of paternal education on the probability of being in a professional occupation, which was particularly strong in the baseline models, is greatly reduced when introducing in the estimation a term capturing participation in adult learning.

Participation in adult learning not leading to qualifications or to 'other' qualifications also significantly increases individual's probabilities of being in a technical or managerial occupation five years after learning incidence, whilst the impact of paternal education is reduced and no longer significant. No significant effects of adult learning are observed for individuals' probabilities of being in a non-manual skilled occupation, whilst acquisition of a qualification at Level 2 or 3 very significantly increases the odds of being in a manual skilled occupation rather than in an un-skilled manual occupation. The effect remains significant even when controlling for individuals' prior educational qualifications in Model 6, suggesting that participation in adult learning may facilitate the transition from an unskilled to skilled occupations when outcomes are considered in the medium term (i.e. five years after learning incidence).

### 1.5.5 Concluding points

Overall, this analysis of BHPS data shows that participation in adult learning – in particular learning leading to qualifications at Level 2 or 3, but also participation in substantial learning not leading to qualifications – may have a significant impact on dynamics of inter-generational mobility, even when controlling for individuals' prior qualification levels. This effect is observed only for outcomes five years after participation in adult learning, and operates by increasing the probability of being in higher occupational statuses five years after learning participation (when the outcomes of learners are compared to those who never participated in adult learning), as well as by reducing the significance and size of the observed effect of paternal education on individuals' occupational status.

However, this analysis is subject to considerable limitations.

First, the relatively small sample sizes and the difficulties in the operationalization of different types of adult learning may reduce the robustness of the findings. Second, the analysis does not consider the impact of repeated spells of adult learning after the first one, which may explain part of the positive effect which instead are attributed to the first episode when occupational outcomes five years later are observed. Indeed, participating in adult learning once may increase individuals' chances of participating again, and the positive effect identified for single, first episodes of adult learning may instead be driven by the subset of people who undertake multiple learning spells in subsequent years. It would therefore be incorrect to conclude that such positive effects can be wholly attributed to one single episode of adult learning.

Whilst taking advantage of the longitudinal nature of the data, this analysis focused on two time points in the panel to analyse impact of learning episodes (one and five years after occurrence of learning); a more comprehensive analysis would also need to consider the effect on all the time points in between, and how this evolves over time.

Finally, when interpreting the results is important to bear in mind an important caveat relating to participation in adult learning and the issue of unobserved heterogeneity. The analysis on determinants of participation in adult learning showed that those who tend to participate in adult learning are, on average, not the most disadvantaged amongst low qualified adults. Although the model presented in this report controls for as many of the factors which are associated with higher chances of participation in adult learning as possible, it is important to bear in mind that those who participate in adult learning may have unobserved characteristics which it has not been possible to control for but that may also positively influence chances of experiencing upward occupational mobility (such as willingness to learn, ability, and other structural characteristics such as household composition, income and opportunities to access learning opportunities in first place). Further analysis would be necessary to adequately account for the issue of self-selection into adult learning, which may be in itself an important driver of upward occupational mobility.



## 1.6 Profile of FE learners

- Over the last ten years, the proportion of learners participating in FE and skills has increased in the most deprived areas. The proportion of adults participating in FE learning is highest in the most deprived quintile. In 2012/13, 18 per cent of adults in the most deprived areas participated in learning, compared with 8 per cent of adults in the least deprived areas. The proportion of learners in the bottom two quintiles of the IMD increased between 2004/05 and 2012/13, while the proportion from the upper three quintiles decreased.
- Since 2004/05 there has been an overall increase in the proportion of learners studying at Levels 2 and 3, and a decrease in the proportion studying at Level 1 and Entry Level.
- Despite these two trends, there is a relationship between Level of qualifications and deprivation, with learners in the most deprived areas less likely than those in more affluent areas to study at Level 3; 18 per cent of learners in the most deprived areas were studying at Level 3 compared with 31 per cent of learners in the least deprived areas. This pattern holds even when prior attainment levels are accounted for.

The number of learners recorded in the ILR fell between 2004/05 and 2013/14 by nearly one third (32 per cent). There were also changes in the composition of the sector in terms of the type of learning as proxied by the funding model. ILR Tables

Table 32 (see Annex) shows that the number of learners in FE 16-19 increased by 14 per cent between the two periods, while there were falls in all other types of learning.

The funding model for 2013/14 combined apprenticeship, employer responsive training and adult responsive learning (mainly adult provision in FE colleges) into Adult Skills Funded learning. Within the period from 2004/05 to 2012/13 the number of learners in apprenticeships and other employer responsive training more than trebled, from 474,600 in 2004/05 to 1,451,900 in 2012/13, while the number of learners in adult responsive learning fell by more than 60 per cent over the same period.

### 1.6.1 Learner characteristics

There are slightly more **female** learners than **male** learners in the sector as a whole (53 per cent female and 47 per cent male) and this gender bias is slightly greater than that in the adult population (51 per cent female and 49 per cent male, Table 33). Community learning (which includes learning for personal development, cultural enrichment, intellectual or creative stimulation and enjoyment) had the highest proportion of female learners, at 72 per cent, while in FE 16-19, ESF co-financed learning and learning supported by other funding streams there was a majority of male learners. The proportion of female learners in learning with no SFA/EFA funding increased from 49 per cent in 2004/05 to 53 per cent in 2013/14, while in all other type of learning/funding models the proportion of female learners decrease (Figure 20). The majority of learners at Level 1 were male (56 per cent, compared with 44 per cent female), while among Level 2 learners

there was an even gender balance, and among learners at all other levels a majority of learners were female (Table 34 in the Annex).

The **age** profile of learners across the sector as a whole is younger than that of the adult population, with a higher proportion of under-40s and a lower proportion of those aged 40 and over (Table 35 in the Annex). Not surprisingly the youngest age profile was in FE 16-19, while Community Learning had the oldest age profile, with 60 per cent of learners aged 40 and over. The age profile of learners became relatively younger between 2004/05 and 2013/14, as Figure 21 in the Annex shows. Learners at Level 3 have the youngest age profile, with nearly half (49 per cent) aged under 19, while 40 per cent of learners at Entry Level, and 55 per cent of those learning at below Entry Level or at mixed levels were aged 40 and over (Table 36 in the Annex).

The profile of learners by **ethnicity** is more diverse than the adult population as a whole. Nearly 19 per cent of learners are from non-white backgrounds, compared with only 13 per cent of the adult population (Table 37). The highest proportions of non-white learners were in FE 16-19 and Adult Skills Funding learning and training, at 20 per cent. The proportion of non-white learners has increased from 15 per cent in 2004/05 to 19 per cent in 2013/14, with large increases among Community Learning and Adult Skills Funding learning (Figure 22). More than one third (36 per cent) of learners at Entry Level, and 21 per cent of those at Level 1, are from non-white backgrounds (Table 38).

Across all types of learning, 16 per cent of learners report that they have a **learning difficulty or a disability** (Table 39 in the Annex). Direct comparisons with the Census data are not possible due to differences in the questions asked, although the Census data show that 10 per cent of the adult population reported a health problem or disability that limits their day-to-day activities a lot, and a further 11 per cent reported a health problem or disability that limits their activities a little. Nearly a quarter (24 per cent) of FE 16-19 learners, and 18 per cent of those in Community Learning or in learning supported by Other funding streams report a learning difficulty and/or disability, while at the other end of the scale only 12 per cent of learners in learning with no SFA/EFA funding report a learning difficulty/disability. The proportion of learners with a learning difficulty and/or disability decreases as the level of learning increases, from 25 per cent of learners at Entry Level to 11 per cent of those studying at Level 4 or above, and 17 per cent of those studying at other levels below Entry Level or at mixed levels report a learning difficulty and/or disability (Table 40 in the Annex).

Information on the **employment status** of learners prior to the start of their learning is collected for learners in Adult Skills Funding and ESF co-financed learning, while it is optional or not routinely collected for other types of learning.

Table 44 (in the Annex) shows the prior employment status for learners in 2013/14, and shows that 30 per cent of learners were in employment, while 37 per cent were unemployed, 14 per cent were economically inactive (ie not working or looking for work), and for 19 per cent of learners their prior employment status was not known. Nearly two fifths (39 per cent) of learners in Adult Skills Funded learning and training were in employment prior to their learning, while nearly three quarters (71 per cent) of those in ESF co-financed learning were unemployed prior to their learning. Source: ILR 2013/14

Table 46 (in the Annex) shows the prior employment status for those with known statuses only, and shows that the majority of learners across all funding streams were out of work prior to their learning, while nearly half (48 per cent) of those in learning not funded by the SFA/EFA were in employment. The proportion of learners who were in employment prior to the start of their learning tends to increase with the level of learning (Table 43 and Table 44 in the Annex); when considering only those with known statuses, one in ten learners at Entry Level and Level 1 were in employment prior to their learning, compared with nearly half of those at Level 2, and nearly two thirds of those at Level 3 or above.

### 1.6.2 Deprivation of area

Looking at participation in learning and training by deprivation, modelled by the Index of Multiple Deprivation (IMD<sup>10</sup>), there is an over-representation of learners from the most deprived areas and an under-representation of those from the least deprived areas in FE. Table 41 in the Annex shows that nearly one in three FE learners (31 per cent) were from the fifth most deprived local areas, and a further 23 per cent are from areas in the second-fifth most deprived, while these areas together account for only 39 per cent of the adult population. Only 14 per cent of learners were from the least deprived areas, compared with 20 per cent of the adult population.

ESF co-financed learning is heavily skewed towards the most deprived areas, which is to be expected given that most ESF money is allocated to less economically developed regions with the aims of extending employment opportunities and developing a skilled and adaptable workforce. Nearly two thirds (64 per cent) of learners in ESF co-financed learning are areas in the bottom two fifths of deprived areas. Adult Skills Funding learning is also heavily skewed towards deprived areas, with 57 per cent of learners from areas in the bottom two fifths.

Figure 23 in the Annex shows participation in learning and training as a proportion of the population in each fifth of areas, and shows that the proportion of adults participating in learning and training decreases as deprivation decreases, from 18 per cent of adults in the most deprived areas to eight per cent of those in the least deprived areas. The proportion of learners from the bottom two fifths of areas has increased between 2004/05 and 2013/14, while the proportion from the remaining (less deprived) areas has decreased (Figure 24 in the Annex). This shift is observed across most types of learning/funding models, and Table 42 and Table 43 in the Annex show that:

- In Community Learning there were more learners from the least deprived areas than from more deprived areas in 2004/05, but by 2013/14 this situation had reversed.
- In FE 16-19 Learning there was a small increase in the proportion of learners from the bottom two fifths of areas, from 47 per cent in 2004/05 to 50 per cent in 2013/14.

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<sup>10</sup> The IMD 2010 consists of 38 indicators across seven domains. These are Income, Employment, Health and Disability, Education, Skills and Training, Barriers to Housing and other services, Crime, and the Living Environment.



- In Adult Skills Funding Learning the proportion of learners from the bottom fifth of areas increased from a quarter (25 per cent) in 2004/05 to a third (34 per cent) in 2013/14.
- The proportion of learners in ESF co-financed learning from areas in the bottom fifth of areas increased from a third (33 per cent) in 2004/05 to nearly four in ten (39 per cent) in 2013/14.
- However, in learning funded by Other funding streams, or that which did not attract any SFA/EFA funding, the proportion of learners from the most deprived areas decreased slightly and there were increases in the proportions from the least deprived areas.

### 1.6.3 Qualification type and level

One in three learners (34 per cent) across all types of learning were studying towards a Level 2 qualification, while nearly a quarter (24 per cent) were studying for a Level 3 qualification, 14 per cent were studying for a Level 1 qualification, 10 per cent were studying for an Entry Level qualification, 15 per cent were studying for a mixed qualification or where the level was not known, and three per cent were studying for a qualification at Level 4 or above.

Patterns varied by the different types of learning/funding models:

- Nearly three fifths (58 per cent) of FE 16-19 learners were studying at Level 3, and just under a quarter (24 per cent) were studying at Level 2.
- Nearly half (49 per cent) of Adult Skills Funding learners were studying at Level 2, while 19 per cent were studying at Level 3, 18 per cent were studying at Level 1, and 14 per cent were studying at Entry Level.
- The majority of learners in Community Learning and ESF co-financed learning were studying for aims at a mixed level, or where the level was unknown.

Since 2004/05 there has been an increase in the proportion of learners studying at Levels 2 and 3, and a decrease in the proportion studying at Level 1 and Entry Level (Table 49 in the Annex). There have been markedly different trends by type of learning: in Adult Skills Funding learning there has been a shift towards learning at Levels 2 and 3 and a shift away from learning at other levels; in Community learning there has been a shift away from learning at Entry Level and Level 1 towards learning at mixed/other levels; while in FE 16-19 the composition has changed little over the period.

Table 51 in the Annex shows the relationship between qualification level and deprivation, in that the proportion of learners studying at Level 3 increases as the level of deprivation decreases. Around one in five learners (18 per cent) in the most deprived areas were studying at Level 3, compared with 31 per cent of learners in the least deprived areas. The patterns for the two largest funding models are shown in Table 52, and Table 53, and

show similar patterns with the proportion of learners studying at Level 3 increasing, and the proportions studying at Entry Level or Level 1 decreasing, as deprivation decreases:

- In FE 16-19 learning, 73 per cent of learners in the least deprived areas were studying at Level 3 compared with 47 per cent of those in the most deprived areas (Table 52 in the Annex).
- In Adult Skills Funding learning, more than a quarter of learners (28 per cent) in the least deprived areas were studying at Level 3, and just over half (52) per cent were studying at Level 2, while the proportions studying at these levels in the most deprived areas were 13 per cent and 45 per cent respectively (Table 53).

One possible explanation for the differences in level of learning by deprivation level might be that prior attainment is higher in less deprived areas than in more deprived areas, and in many cases access to learning is dependent upon prior attainment eg learning at Level 3 is dependent upon a prior attainment of Level 2. Table 54 shows that nearly half (49 per cent) of learners in the least deprived areas have a prior attainment of Level 2 or above, compared with 37 per cent of learners in the most deprived areas, and under a quarter (24 per cent) of learners in the least deprived areas have a prior attainment of below Level 2, compared with 44 per cent of those in the most deprived areas.

Table 55 in the Annex shows the relationship between prior attainment and level of learning, and shows that half of those with no prior qualifications, and 63 per cent of those with prior attainment below Level 1, were learning at Level 1 or below, while 47 per cent of those with a prior Level 2 were studying at Level 3. Table 3 (below) shows the proportion of learners studying at Level 3 by prior attainment level and deprivation. The table shows that even accounting for prior attainment, learners in the most deprived areas are less likely to be studying at Level 3 than learners in the least deprived areas; 39 per cent of learners in the most deprived areas with a Level 2 prior attainment were studying at Level 3, compared with 57 per cent of those with a Level 2 prior attainment in the least deprived areas, and this pattern is repeated across all prior attainment levels. This suggests that there are other factors influencing level of study in areas with different deprivation levels aside from learners' prior attainment.

**Table 3: Proportion of learners studying at Level 3 by prior attainment and IMD quintile, all funding streams, 2013/14 (%)**

	IMDQ 1 - Most deprived	IMDQ 2	IMDQ 3	IMDQ 4	IMDQ 5 - Least deprived	All areas
<b>No qualifications</b>	5.6	8.1	10.2	12.1	14.2	8.3
<b>Below Level 1</b>	4.5	6.2	8.5	10.4	10.6	6.6
<b>Level 1</b>	14.0	17.3	19.6	22.0	23.4	17.9
<b>Level 2</b>	39.2	44.6	49.1	53.1	56.8	47.1
<b>Level 3</b>	22.9	26.1	28.8	30.7	33.3	27.7
<b>Level 4+</b>	8.5	9.6	11.6	12.7	13.4	11.1
<b>Other qual., level not known</b>	10.2	10.5	11.3	12.2	12.6	11.0
<b>Not known</b>	14.0	16.5	18.4	20.2	22.5	17.9
<b>Total</b>	18.0	22.2	25.7	28.8	31.4	23.8

Source: ILR 2013/14

## 2 The contribution of FE and skills to entry to work, in-work progression and earnings

### 2.1 Key findings

- Participating in training can reduce unemployment or low pay and increase the likelihood of entering permanent work, with gains accruing and fluctuating several years after completion.
- Employment, in-work and earnings returns are affected by personal characteristics and other contextual factors such as level, gender and age as well as structural elements including sector subject area or region, with each producing nuanced findings.
- For example, women with a highest learning aim of Full Level 2<sup>11</sup> have positive and significant earnings returns, but these are negligible compared to Level 2 achievers. Earnings returns from Full Level 2 and Level 2 qualifications are inconsistently differentiated by age, where low returns may hide considerable heterogeneity.
- The association between age and employment is highly unclear, with some studies suggesting no differences are attributable while others find young people are more likely to be employed or in part-time or temporary work than older learners. Earnings returns appear to be generally greater for younger people.
- In aggregate, learning and qualifications have a positive impact on earnings, which is higher still where qualifications are upgraded as a result of lifelong learning. However, learning continues to produce strong results without upgrading, particularly for women learning at Level 2 and below.
- For individuals undertaking and completing higher level qualifications, the level of employment increased steadily.
- There are greater earnings returns associated with the completion of vocational qualifications when undertaken through the workplace route as opposed to the classroom route, aside from where that learning is at Level 3<sup>12</sup> or Full Level 2. Despite prior research suggesting the same was true for into work returns, recent

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<sup>12</sup> Comparison not available

research suggests that the picture is more mixed according to learning mode, with no clear trend emerging. Lifetime benefits of apprenticeships at Level 2 and 3 are significant, yet as with other types of qualifications there were noticeable differences by subject.

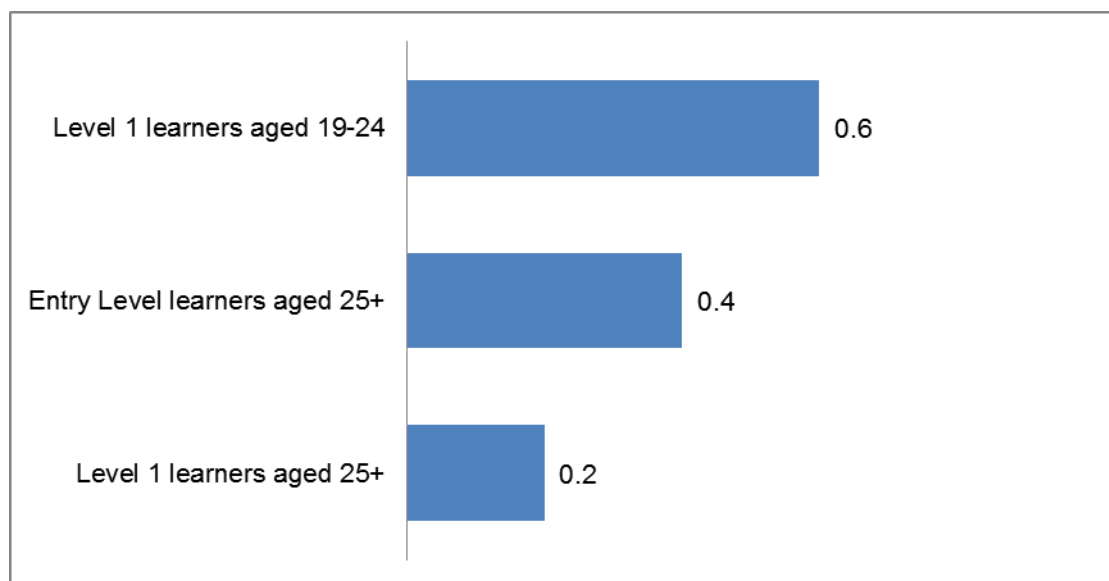
- Returns to BTEC, City and Guilds and RSA qualifications have been found to differ according to the comparison groups used. On balance, NVQs produce positive earnings returns for completers, but the negative picture for low level NVQs may be due to the age of the learner and timescale over which earnings are considered.

## 2.2 Entry to work

Studies have found varying employment outcome rates from Further Education learning. Overall, the picture is positive, whether looking at employment outcomes, time spent in employment or movement from benefits into work. Research looking at experimental data (new data made from administrative datasets and government data) found that 72 per cent of adult learners completing publicly funded courses sustained a positive destination into employment or further learning six months after learning (51 per cent employment only, 11 per cent learning only, 10 employment and learning, BIS 2014b). Recent analysis of matched data (Bibby et al, 2014) estimates achievers' employment probability (as compared to non-achievers) and suggests that the fall from 8.7 to 2.3 percentage points is accounted for by achievers being more likely than non-achievers to be previously employed. Therefore, achievers being more likely to be employed after learning was not, as had been previously asserted, something attributed to the learning but instead their status prior to learning (Bibby et al, 2014).

Some studies have looked at the incidence of leaving unemployment benefits after completing courses. When looking at the impact of vocational qualifications Conlon and Patrignani (2013) found that achievers who finish an FE learning spell are less likely to be claiming benefits four weeks after the end of that spell compared to non-achievers. Furthermore, compared to a counterfactual of non-completers, in 2010-11, Wiseman et al (2013) found that Level 1 achievers aged 19 to 24 spent the greatest average time off active benefits, with Level 1 achievers aged 25 and over spending the least time off active benefits (see Figure 9)

**Figure 9: Average time spend off active benefits according to learner age and level of learning, in weeks**



Source: Wiseman et al (2013)

Two studies have looked at the Department for Work and Pension's Six Month Offer (6MO) (Adams et al 2011a, Adams et al 2011b) and also reported on the proportion of learners entering employment and leaving Jobseeker's Allowance (JSA). As part of 6MO claimants were given the opportunity to participate in four voluntary strands of activity including the Work-Focused Training Strand. The training in this strand of the 6MO was short term, full or part time, and focused on meeting the individual's work aspirations and employer demand. The initial survey of learners found that 24 per cent had left JSA and entered paid employment at some point after they had completed the training and before the survey. Of this number, 81 per cent were still in paid work at the time of the survey. In the follow-up survey one year later, 38 per cent of Training Strand participants were in paid work, compared to 15 per cent in the first survey. Where Training Strand participants had initially entered work there was a strong likelihood of them still being in paid employment 12 months on: 75 per cent of those who were employed at the time of the initial survey were also in employment at the follow-up interview.

Looking at the initial research and longitudinal research together, it showed that there had been an increase in the numbers employed on a permanent basis (from 47 per cent to 52 per cent) and a small decrease in the numbers employed on a temporary or contract basis (27 per cent to 25 per cent). A quarter (25 per cent) of those in the longitudinal survey had entered low skilled, elementary roles where qualifications were less likely to be an entry requirement. This is broadly in line with the proportion seen among a general sample of JSA claimants reaching the seventh month of consecutive claiming (28 per cent). Overall, in the longitudinal study 42 per cent of participants stated that the training they received had helped them to gain their current role. This was (broadly) evenly split between those who thought it definitely helped (21 per cent) and those who said it probably helped (23 per cent). However, this was balanced by a similar proportion (39 per cent) who believed

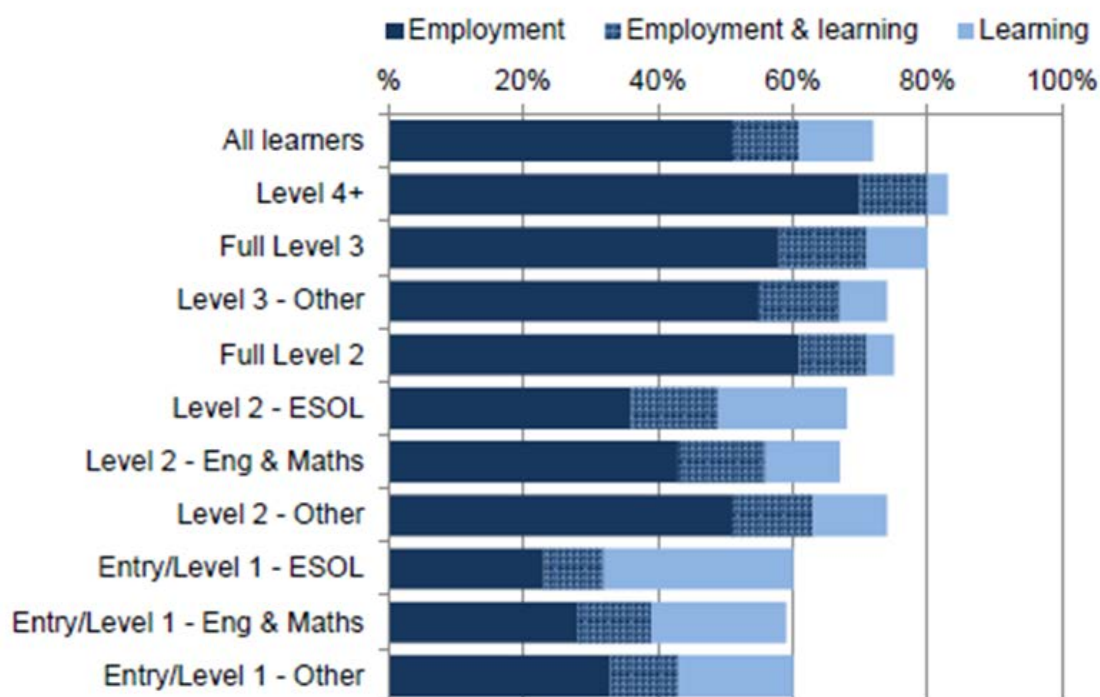
that the training received under the 6MO definitely did not help them get their current role (Adams et al 2011a, Adams et al 2011b).

### 2.2.1 Qualification Level

The picture of outcomes and employability is nuanced by the specific types of learning and levels undertaken. Much of the existing research has found that there is a relationship between the level of the learning or qualification and employment outcomes.

Analysis of administrative datasets and government data (BIS 2014b) found that positive destinations varied by level of qualification, with positive sustained employment destinations more likely for learners completing higher level qualifications.

**Figure 10: Positive sustained employment destinations are more likely for learners completing higher level qualifications**



Source: Outcome-based success measures: Experimental Data 2010/11, BIS 2014b

A survey of learners not in employment who had participated in or completed learning or training in 2011/12 (London Economics and Ipsos Mori, 2013b) found that for individuals undertaking and completing higher qualification levels, the level of employment increased steadily. As when considering age, the detail of the relationship between job outcomes and levels of attainment highlights the fragility of learners' and completers' employment status. However, this study found that those with lower levels of educational attainment were as or more likely to be in permanent employment as those completing higher level qualifications.



## 2.2.2 Low level qualifications: pre-employment training, English for Speakers of Other Languages (ESOL), Skills for Life and Level 1

When looking at pre-employment training<sup>13</sup>, Ofsted (2012) found that employment outcome rates varied widely between providers (between one and 46 per cent). On average 19 per cent of course completers were in work. The employment rates for individuals who had attended training designed specifically for an employer also varied considerably, from a low of two per cent to a high of 96 per cent. Ofsted found that where programmes were vocational or their structure included guaranteed interviews with an employer this proved more successful in securing job outcomes, particularly where the course included the development of specific skills for a particular employer, or further accreditation such as construction site safety cards (Construction Skills Certificate Scheme – CSCS) or Occupational Safety and Health (OSH) certificates. Among those interviewed who had gained employment, interview skills were cited as the most crucial aspect of their training, and some said that while at the time of they had not realised, they subsequently believed their interview skills had improved as a result of the training.

In addition to employment outcomes from courses, studies have also looked at the time spent in employment and found that this is affected by the level of the course. For example, Wiseman et al (2013) found that the effect on time spent in employment is greater for those completing learning at Level 1 than Entry Level (Wiseman et al, 2013).

The literature review by Vorhaus et al (2011) highlighted research that showed differing strengths of effect for Skills for Life attainment. This cited research by Patrignani and Conlon (2011) that found that there were more pronounced impacts from Skills for Life attainment at Level 2 compared to Level 1. Research for BIS (2010<sup>14</sup>, also cited in Vorhaus et al, 2011) showed that employment premia should also be considered by previous highest qualification; people qualified at Level 1 undertaking a Skills for Life qualification received a 1.4 per cent premium compared to 0.3 per cent for those already qualified at Level 2. The authors also cited Metcalf et al (2009) who found that over time, there was no significant relationship in employment premiums of learners compared to non-learners and concluded that participation in literacy and numeracy courses did not necessarily mean a fast-paced transition into employment. Nevertheless, Crawford et al (2011) found in the literature that the rate of return for basic skills is higher in the UK than in competitor countries.

Alternative research for BIS found that the effects of completing a qualification continue for many years after the course. Conlon and Patrignani (2013) found that *'Skills for Life qualifications generally offer their recipients strong employment returns'*. Their findings demonstrated that Level 1 completers were 2.4 per cent more likely to be in employment in the first year post-course completion and 3.7 per cent in the seventh year after completing the course than compared to non-completers (Conlon and Patrignani, 2013). However,

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<sup>13</sup> Labour market focused training for people who are out of work, to help them develop skills that will support their progression into employment.

<sup>14</sup> Referenced wrongly in the body of the Vorhaus report, correct date used here.



more recent estimates of three to five year average employment premiums suggest that any employment effect for learners learning below Level 2 is very small – 0.3 of a percentage point (Bibby et al, 2014).

### 2.2.3 Level 2 and 3

In recent analysis of matched data, Bibby et al (2014) outline that the highest three to five year average into work returns are in respect of Full Level 3 achievers (3.8 percentage points higher than non-achievers), compared to 1.5 percentage points for Full Level 2 achievers. For Level 2 and 3 FE learning, the employment-entry returns are respectively 0.9 and 1.4 percentage points. The former is a little better than it seems, as Level 2 achievers (and non-achievers) have lower absolute employment, so small percentage point differences amount to larger percentage differences. In other words, the Level 2 percentage point premium translate into an approximate two per cent premium (Bibby et al, 2014).

In further discussions of employment premiums and long term impact, Conlon and Patrignani (2013) looked at the difference between achievers and non-achievers. They reported that Full Level 2 and Full Level 3 achievers have the largest estimated percentage point premiums over non-achievers. Both achievers and non-achievers amongst Level 3 learners have higher employment rates than those whose highest learning aim is a Level 2 apprenticeship. Learners who achieve Full Level 2/3 qualifications accrue the highest employment probability premium returns four weeks after the completion of their course, relative to non-achievers in these groups, with these premiums remaining constant four years post-completion. One year after learning, Level 2 achievers secure a higher employment premium than achievers at Level 3. The authors also looked at different types of qualification, finding that at Level 2, more numerical qualifications (such as GCSE in maths, Certificate in Numeracy and Key Skills Numeracy) result in achievers being employed for at least 3.7 per cent more of the year following completion compared to non-numeric qualifications. When looking at disaggregated earnings premiums of Level 2 qualifications, Key Skills Numeracy produces the strongest returns, for example a 15 per cent earnings premium within the first two years post-study, rising to around 33 per cent in the seventh year (Conlon and Patrignani , 2013, see Table 4).

**Table 4: Impact of Level 2 Skills for Life attainment on earnings premiums**

Level 2 qualification	One year post-study	Two years post-study	Three years post-study	Five years post-study	Seven years post-study
<b>GCSE maths</b>	0.048***	0.014	0.045***	0.146***	0.189***
<b>GCSE English</b>	0.016	-0.019	-0.025	0.054**	0.058
<b>Certificate Numeracy</b>	-0.003	-0.023	0.007	0.092***	-0.006
<b>Certificate Literacy</b>	0.036**	0.025*	0.019	0.041*	-0.213*
<b>Key Skills Numeracy</b>	0.041	0.151***	0.155***	0.225***	-0.328***
<b>Key Skills Communication</b>	-0.120***	-0.059***	-0.040*	0.182***	0.138

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The coefficients presented in this table do not represent the original coefficients from the regression analysis, but an exponential transformation of the original coefficients (undertaken because the original regression model considers the impact of qualifications on the logarithm of hourly earnings).

Source: Conlon and Patrignani (2013), Table 20

The experimental data analysis for BIS (2014b) found that the percentage of learners attaining a positive destination (into employment, learning, or learning and employment) rose to 80 per cent, as compared to 72 per cent for Level 2 learning (BIS, 2014b).

As with the BIS research referenced in the literature review by Vorhaus et al (2010, in Vorhaus et al, 2011), Dorsett et al (2010) demonstrate the importance of considering initial education levels prior to learning or qualification attainment. Using the British Household Panel Survey (BHPS), they found that participation in lifelong learning increases the likelihood of being employed for all except those learners with a Level 3 qualification who have not upgraded, for whom the non-employment rate increases from 9.3 per cent to 10.4 per cent compared to individuals with a Level 3 qualification not undertaking lifelong learning (Dorsett et al, 2010).

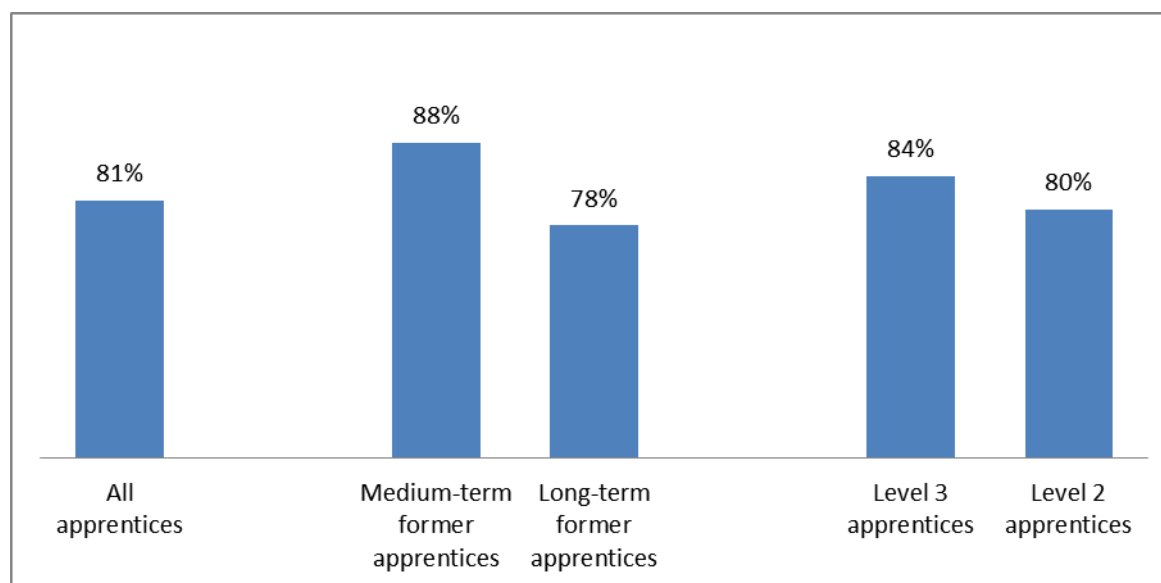
## 2.2.4 Qualification type

### ***Apprenticeships***

Studies that explored the returns from and impacts of apprenticeships typically found that those who undertake apprenticeships have both higher progression and sustained employment rates than other learners. For example, BIS (2014b) showed that learners who complete apprenticeships have higher positive progression rates (84 per cent) than those who complete skills courses (70 per cent). Analysis of the immediate annual average earnings of further education learners (achieving Full Level 2 or Full Level 3 qualifications in the academic year 2009/10) who found sustained employment (BIS, 2014a) showed that learners who achieve apprenticeships have higher rates of sustained employment than learners on other provision in the same sector subject area. When looking at the employment returns to apprenticeship achievement, Bibby et al (2014) noted

that by the third and fourth years post-learning there is little difference between achievers and non-achievers. As apprentices will be in employment during study, even non-achievers will have a higher chance of being in employment, so influencing the returns (Bibby et al, 2014).

The 2013 evaluation of apprenticeship learners (BIS, 2013) found 81 per cent of former apprentices were in full or part-time employment at the time of the survey. Those who had completed their apprenticeship more recently (one to two years prior to the survey) were more likely to be employed than those who had completed their apprenticeship three years previously (88 per cent compared with 78 per cent, see Figure 11). The evaluation also looked at full and part-time work. Of those apprentices who had worked since their apprenticeship, most had mainly worked full-time (60 per cent), 17 per cent had mainly worked part-time or via job shares, and 11 per cent had mainly done temporary or casual work. Notably there were age dimensions to these findings with younger apprentices more likely to have held temporary jobs compared to older apprentices. This research also found that employment was affected by other factors such as sector subject, level and age. The proportion in paid employment ranged from 66 per cent of those who had completed **frameworks** in *Construction, Planning and Built Environment* to 88 per cent amongst former *Business, Administration and Law* apprentices. However, there was a high rate of self-employment in the construction sector, which may account for the low incidence in this framework. Former apprentices from *Business, Administration and Law* frameworks were most likely to have mainly worked full-time (69 per cent), whilst those from *Construction, Planning and the Built Environment* frameworks were most likely to have mainly worked in temporary or casual jobs (55 per cent). Former apprentices who were working in an area related to their apprenticeship were more likely to have done mainly full-time work (64 per cent) and for it to have been permanent (55 per cent), compared to those who were working in an unrelated area (93 per cent versus 84 per cent respectively). A slightly greater proportion of **Level 3** apprentices were in employment at the time of the survey compared to those with a Level 2 learning aim (84 per cent compared with 80 per cent). Only four per cent of those **aged 25** or over were unemployed, compared to nine per cent of 16 to 18 year olds (BIS, 2013).

**Figure 11: Proportion of apprentices in (full- or part-time) paid employment**

Source: Survey of apprentices, longitudinal boost, BIS 2013

More recent research by Bibby et al (2014) comparing male- and female-dominated sector subject areas found that the three to five year employment probability premiums are stronger for the latter in both the case of Full Level 2 and Full Level 3 qualifications. As such, completion in frameworks including Adult Social Care and Child Development and Wellbeing is associated with stronger returns than Construction or Transportation, both of which produce negative averages (Bibby et al, 2014)

### ***NVQs, City and Guilds, BTECs and other vocational qualifications***

In the same way that employment outcomes from academic qualifications and apprenticeships have been considered by level and factors such as gender and age, so too have vocational qualifications. There is a consensus within the evidence that vocational qualifications at a higher, rather than lower, level present the greatest returns in respect of employment (CEDEFOP, 2011; Crawford et al, 2011; Cambridge Econometrics and Warwick Institute for Employment Research, 2013; Conlon and Patrignani, 2010; Conlon and Patrignani, 2013).

The Apprenticeship Evaluation of learners (BIS, 2013) and a review of the economic benefits of vocational qualifications also for BIS (Cambridge Econometrics and Warwick Institute for Employment Research, 2013) found that returns to study in terms of wages and employment differ according to **subject of study and level**. The studies that Cambridge Econometrics et al reviewed (BIS Research Paper 47, BIS Research Paper 48 and BIS Research Paper 53) found that higher levels of attainment (i.e. up to Level 3) are associated with higher returns in terms of wages and employment. One of the studies (BIS Research Paper 53) found that apprenticeships have the highest overall employment returns at Level 3. With respect to reductions in benefit dependence the results are more mixed with lower level qualifications, including Level 1, resulting in relatively greater reduction in benefit usage than higher level qualifications (BIS Research Paper 47). Based

on the descriptive analysis presented in BIS Research Paper 48, the employment rate before and after learning improves most (on average) for those who have undertaken the Preparation for Life and Work course (an increase of ten per cent in the share of learners in employment). BIS Research Paper 53 also reports that returns to City and Guilds Level 3 are typically higher for men than women in all sectors.

In 2010, Conlon and Patrignani found a positive relationship between attainment and likelihood of employment that increased with the level of attainment. In research in 2013, the same authors found similar results when they looked more broadly at vocational qualifications. Both NVQs and City and Guilds qualifications at Level 2 offered gradually increasing returns over time (5.5 per cent rising to 7.2 per cent and 3.3 per cent rising to 6.0 per cent respectively). Level 3 NVQs offered their holders increasing employment returns over seven years compared to other Level 3 qualifications (3.5 per cent rising to 8.2 per cent compared to a flat 5 per cent for City and Guilds at Level 3).

## 2.2.5 Learner characteristics

### **Gender**

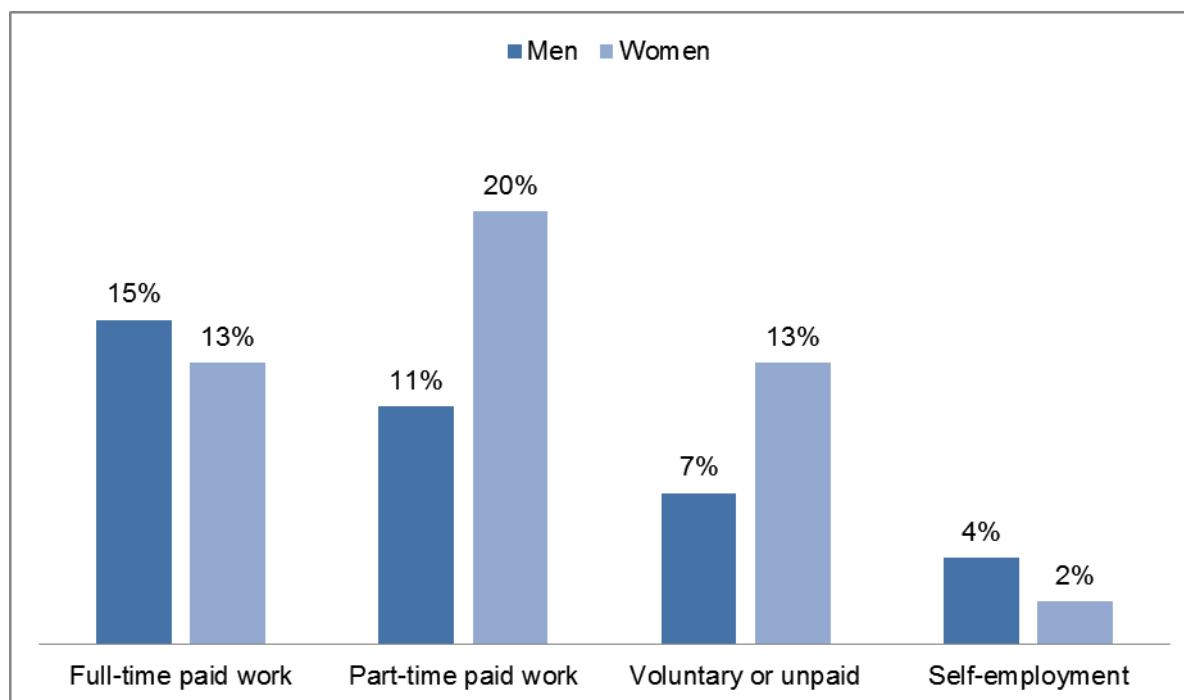
Analysis of government data and administrative datasets showed that women have a higher sustained positive destination rate (74 per cent) compared to men (69 per cent) (BIS, 2014b). Likewise, recent analysis of matched data has shown that women secure a greater three to five year employment average compare to men (Bibby et al, 2014). For example, Full Level 3 female achievers have rates 4.3 percentage points higher than non-achievers, whilst Full level 3 male achievers' premium is just 0.5 percentage points more. Similarly, whilst men secure no significant employ return from learning below Level 2, the premium for women is 0.4 percentage points. The authors suggest that when this is considered alongside the lower earnings returns, part-time work may be obscured (Bibby et al, 2014). Other studies have shown in more detail the differences in outcomes by gender.

In 2010 Conlon and Patrignani found that there were differences between gender, that varied by qualification type, as part of research looking at returns to BTEC qualifications. At Level 1 women exhibit a greater likelihood (compared to a control group with no qualifications) of gaining employment from NVQ and RSA qualifications and men experience a greater likelihood of being employed from City and Guilds and BTEC qualifications. At Level 2, the picture is similar with men more likely to gain employment from BTECs and women from RSA qualifications. Women with NVQ Level 3 are 16.8 percentage points more likely to be employed compared to the control group, and men 8.7 percentage points more likely. Men with Level 3 City and Guilds have an increased (11 percentage points) likelihood of being employed compared to the control group, whilst women have 3.8 percentage point employment boost.

London Economics and Ipsos Mori (2013b) conducted quantitative research with a sample of participants in learning (who were not in employment prior to learning) taken from the ILR to look at employment and economic returns to participating in FE (aggregated). They found that around 30 per cent of men and 35 per cent of women were in employment following the completion of their course. A further seven per cent of men and 13 per cent

of women were in voluntary or unpaid work (see Figure 12). The report also stated that this did not in all cases represent entry to employment as some respondents were in the same employment position; 71 per cent of male respondents and 84 per cent of female respondents had been retained in the job they had at the start of learning. Conversely, half of the learners who completed qualifications were not in employment after they had finished their courses – 57 per cent of men and 45 per cent of women – and reasons for this depended on the distance of individuals from the labour market. Health reasons were cited by 33 per cent of respondents, 22 per cent described having childcare responsibilities and 21 per cent were waiting for the course to fully complete or for a response to a job application.

**Figure 12: Proportions of learners not in employment prior to learning in full- or part-time paid employment, self-employment or voluntary or unpaid work**



Source: London Economics and Ipsos MORI (2013b)

As stated earlier, Conlon and Patrignani (2013) found that achievers had a higher probability of employment than non-achievers. They also looked at this by gender and found that for learning aims below Level 2, female achievers had a lower probability of employment over non-achievers than male achievers over non-achievers. For all other levels of qualification females achievers were on a par with male achievers over non-achievers. However, in the case of Full Level 2 and Full Level 3 qualifications the employment probability premium for female achievers was substantially larger than for male achievers from one year onwards.

## Age

The evidence on age and employment outcomes is more mixed. For example, Conlon and Patrignani (2013) found that employment outcomes were independent of age for all levels. However, London Economics and Ipsos MORI (2013a) and Wiseman et al (2013) found that there were differences in employment outcomes by age. In their study that included a literature review, primary research with learners, and secondary data analysis, Wiseman et al (2013) found a more positive picture for younger, than older learners with regards to employment outcomes; 19-24 year olds who achieved a Level 1 qualification spent an average of one and a half weeks more in employment than those who did not achieve the qualification, with smaller gains for learners aged over 25. Other research demonstrates that younger people may enter more precarious employment. London Economics and Ipsos MORI (2013a) found that younger cohorts were about five percentage points more likely to be in part-time work than those aged 40 and older. For these younger learners, the job was also more likely to be temporary and short-term (London Economics and Ipsos MORI, 2013a). In contrast, research by Bibby et al (2014) has found the returns for learners aged 25 and over to be on a par with or greater than those for learners aged 19 to 24 for many levels of learning. One particularly stark difference is the very small estimated premium for learners aged 19 to 24 achieving a Full Level 2 compared to non-achievers (0.2 percentage points) (Bibby et al, 2014, see Table 5).

**Table 5: Estimated employment probability premiums of achievers (compared to non-achievers) aged 19 to 24 and 25+**

	Below Level 2	Level 2	Full Level 2	Level 3	Full Level 3	Level 4+
<b>Aged 19-24</b>	0.003	0.016	0.002	0.002	0.013	0.010
<b>Aged 25+</b>	0.003	0.010	0.018	0.009	0.018	0.009

Source: Bibby et al (2014), Tables 19 and 20, p.49

### 2.2.6 Other contextual factors

The literature most commonly highlighted differences in levels and types of qualifications, gender and age as factors differentiating employment outcomes from learning and qualifications. However, some studies indicated that there were factors other than these that could impact on entry to work. This included the data analysis for BIS (2014b) that showed that there were lower sustained positive progression rates for learners with learning difficulties and/or disabilities (LLDD). The same report also showed that the economic situation of learners could affect recorded entry to employment rates as providers with a high proportion of benefit claimants (JSA or people within the Work-Related Activity Group on Employment and Support Allowance – ESA (WRAG)) were likely to have lower sustained positive destination rates.

Conlon and Patrignani (2013) identified study mode as affecting outcomes, with workplace learning outperforming classroom learning. These outcomes are also independent of qualification level completed and are persistent over time. These authors also noted differences in employment premiums relative to non-achievers between learners based in an FE environment and a work-based learning environment. However, these comparisons



are problematic, given that the two categories may contain very different types of learners – to move an individual between these different learning environments may not necessarily increase their earning premiums, as the new environment may be less appropriate for them. Further, learners in a work-based learning environment may remain with the same employer in subsequent employment spells (Conlon and Patrignani, 2013).

The analysis provided by Bibby et al (2014) provides some more recent evidence concerning study mode, which shows that vocational work-based learning (WBL) provided stronger three to five year average returns than vocational CBL for below Level 2 learning, and stronger average than vocational CBL and academic qualifications for Level 2 Learning. However, the picture then becomes more mixed, as although it appears that vocational CBL provides the strongest returns for Full Level 2, and academic qualifications produce negative results, the academic learner cohort is dominated by young learners, so it is likely many of the achievers progress into further learning. Full Level 3 academic achievers secure the greatest returns (4.1 percentage point three year average compared to 3.3 for vocational CBL and 1.9 for vocational WBL) (Bibby et al, 2014).

As seen earlier in the discussion of apprenticeships and vocational qualifications, sector or subject has a bearing on employment outcomes. Conlon and Patrignani (2013) commented on this, noting differences by level and over time. *Engineering and Manufacturing Technologies and Construction, Planning and the Built Environment* learners are in employment a greater proportion of the year by between four per cent and five per cent at Level 2 and by between five per cent and six per cent at Level 3. The employment outcomes for *Retail and Business Administration* learners are lower, but still offer positive benefits to holders. The authors found that while the employment outcome returns to ICT subjects are generally insignificant in the immediate post attainment period, they grow to between four per cent and five per cent by seven years post-completion. A publication for BIS in 2014 (BIS, 2014a) supports this and finds that learners who achieved qualifications in *Business, Administration and Law* recorded high rates of sustained employment across all levels and types of provision.

In addition to the course factors and personal characteristics that can affect labour market outcomes, Wiseman et al (2013) in their literature review also found that the jobs market and initial motivations of learners are also important considerations. A further contextual factor to consider is the location of the learner. In analysis of Community Learning, Harding et (2014b) found that a slightly higher proportion of learners on Family English, Maths and Language<sup>15</sup> (FEML) courses from the three most deprived areas reported that the course had helped them to develop job-related skills than learners in other areas engaged in this provision.

## 2.3 In-work progression

Several studies have shown that for some learners, there were qualitative and quantitative changes in work attributed to their participation in learning. Aspects of in-work progression

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<sup>15</sup> A strand of Community Learning

reported in different studies include changes in hours, responsibilities, and contract conditions.

### 2.3.1 Work responsibilities

Promotions or increased responsibilities, such as supervising or mentoring, were found to be a result of learning in much of the literature.

With regards to **greater responsibility** at work following learning or qualifications, Community Learning participants who had been in employment shortly after course completion most commonly reported being able to mentor or help colleagues (65 per cent) (Harding et al, 2014). Apprentices who had a period of employment post-completion reported doing a job with more responsibilities as a result of completing the programme<sup>16</sup> (BIS, 2013). This survey of apprentices found differences between groups: the incidence of more responsibility was higher amongst former apprentices completing three or more years previously, Level 3 completers and males. There were also differences by sector subject/framework; *Engineering and Manufacturing Technologies and Construction, Planning and the Built Environment* participants were more likely than those involved in other frameworks to be undertaking a job with more responsibilities. Apprentices still working in an area related to their apprenticeship were significantly more likely to report doing a job with more responsibilities (80 per cent versus 56 per cent of those working in a job unrelated to their apprenticeship). Table 6 shows the proportions of apprentices at different levels and on different frameworks who reported increased responsibilities at work.

**Table 6: Proportions of apprentices reporting increased responsibilities at work**

	Overall	Level 2	Level 3	Information and Communications Technology	Health, Public Services and Care	Construction, Planning and the Built Environment
<b>Medium-term apprentices</b>	67	66	69	65	66	88
<b>Long-term apprentices</b>	74	73	76	64	75	82

Source: Initial and longitudinal survey of apprentices, BIS 2013

**Promotions** were less common although still notable among changes experienced post-learning participation. It was the least commonly experienced change at work in the Community Learning Survey (Harding et al 2014a, 11 per cent) and a similar number of learners below Level 2 were found by Wiseman et al to have been promoted (16 per cent, 2013). Under half of apprentices surveyed in 2013 had been promoted (BIS 2013). From the same study, the likelihood of getting a promotion increased with time (35 per cent of

<sup>16</sup> The survey included recent completers, medium-term completers who had finished their apprenticeship 1-2 years previously and long-term completers who had completed their apprenticeship 3 or more year previously

medium-term former apprentices and 47 per cent of long-term former apprentices). Promotions were also more common among Level 3 apprentices (47 per cent compared with 40 per cent for Level 2). There were also differences by framework, with promotion more common among those who completed frameworks in *Retail and Commercial Enterprise* (47 per cent), *Engineering and Manufacturing Technologies* (46 per cent) and *Business, Administration and Law* (45 per cent). Promotions were more commonly reported by former apprentices who had attained additional qualifications after their apprenticeship (49 per cent versus 39 per cent who had not). In addition, former apprentices who had remained working in an area related to their apprenticeship were significantly more likely to have been promoted post-completion (47 per cent compared to 30 per cent working in an area unrelated to their apprenticeship).

### 2.3.2 Hours and contract conditions

In addition to the evidence of promotions and higher pay as a result of learning or qualification, there was also evidence of more hours for some learners (Adams et al 2011b). Furthermore, better job security was found to be an important facet of changes at work that could contribute to breaking to low pay/no pay cycle (Wiseman et al, 2013; Adams et al, 2011b).

### 2.3.3 New skills for the job

The apprenticeship survey findings (BIS, 2013) highlight that a large proportion (86 per cent) of apprentices who had at least one spell of employment since completing their apprenticeship believed that the programme had improved their ability to do their job. Again, these findings were disaggregated by framework type: former apprentices in *Construction, Planning and Built Environment* and *Engineering and Manufacturing Technologies* were most likely to report that their ability to do their job had improved (93 per cent and 91 per cent, respectively), and former apprentices in *Leisure, Travel and Tourism* and *Information and Communication Technology* were least positive about the impact of their apprenticeship on their ability to do their job (both 78 per cent). Findings for Community Learning completers were not as positive as apprentices, but nevertheless also found a large proportion thought that they were able to do their job better (Harding et al, 2014a; 2014b).

### 2.3.4 Learner characteristics

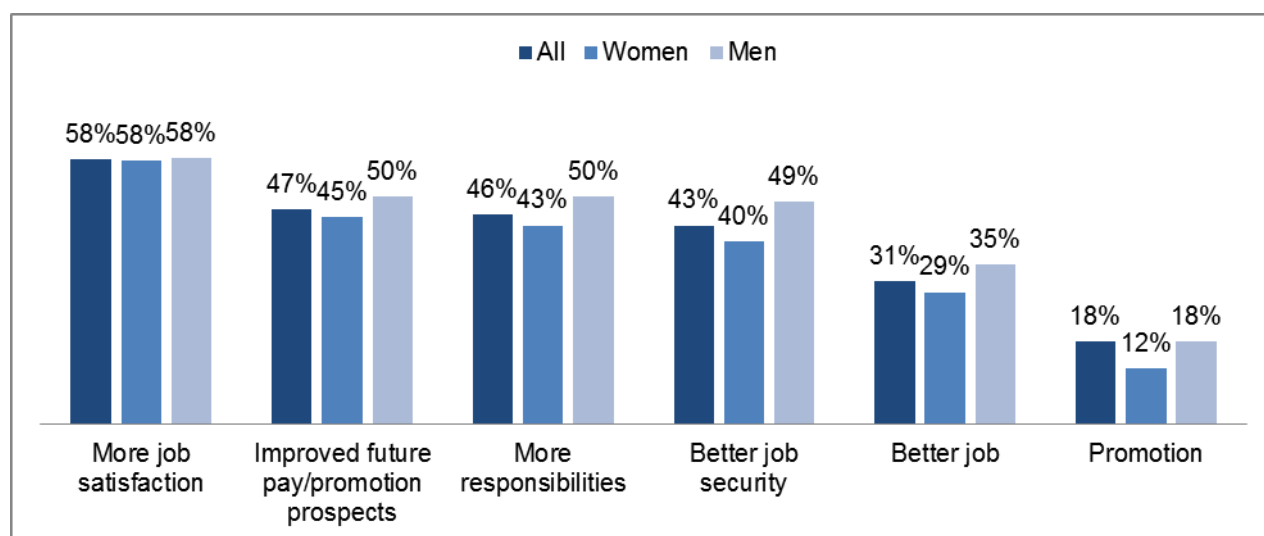
In addition to identifying different types of progression in work, the evidence also highlighted some differences in terms of types of study and sector subject. Some of the research also shows a breakdown of progression by gender.

Vorhaus et al (2011) cited research that shows through analysis of BCS70 that men with poor numeracy were much less likely to have been promoted at any time (38 per cent of those with poor numeracy compared to 58 per cent with good numeracy). Comparatively, one-third of women with poor numeracy had been promoted, compared to more than half of those with good skills.

London Economics and Ipsos MORI (2013a) conducted a survey of FE learners, the results of which indicate that there are large and significant economic benefits associated

with undertaking and completing learning and training. Around one-third of men and women (35 per cent of men and 29 per cent of women) indicated that they had acquired a 'better job' as an outcome of course completion. Under one-fifth (18 per cent) of men and 12 per cent of women indicated that they had received a promotion. As well as these 'hard' outcomes, 58 per cent of both men and women stated that they were now receiving more satisfaction from their job as a result of completing the FE course. Half of all male learners surveyed said that following the completion of the course they had achieved better job security, had improved future pay and promotion prospects, and were now undertaking a job with greater responsibilities. The proportion of women who reported these benefits was slightly lower, at 40, 45 and 43 per cent, respectively (London Economics and Ipsos MORI, 2013a, see Figure 13).

**Figure 13: Proportions of learners reporting work-related benefits associated with learning**



Source: London Economics and Ipsos MORI (2013a), Table 28 p.59

Blanden et al (2012) found that lifelong learners attaining a qualification in adulthood after leaving compulsory schooling tended to be employed when they undertook their learning. Those with lower wages are the most likely group to engage in lifelong learning, and there is a significant positive effect of this on hourly wages, though the impact varies by gender. For men the return on wages is statistically significant after two years compared with one year for women.

McMullin and Kilpi-Jakonen (2014) used the CAMSIS scale (occupational advantage generated from Standard Occupational Classification (SOC) codes) in BHPS as a measure of prestige and indicator of mobility. Upward mobility is assumed to be an increase of five points and downward social mobility is assumed to be decrease of one point. They found a significant positive relationship to social mobility for women who had completed adult learning at lower secondary level, as opposed to those with no experience of adult learning. Three significant relationships were found for upward mobility: firstly for men having undertaken certified informal learning in the previous wave of the survey (0.17, significant at the 10 per cent level), secondly for women having undertaken informal

internal training (0.16,  $p < 0.05$ ) and thirdly also for women who had undertaken informal external training in the previous wave (-0.45, significant at the five per cent level).

## 2.4 Earnings

Several studies have used earnings returns as a measure of the benefits of training. Much recent evidence in England has made use of **matched administrative data** – such as the ILR matched to Her Majesty’s Revenue and Customs (HMRC) records – and compared course completers to non-completers. **Analysis of secondary datasets**, such as BHPS and the Labour Force Survey (LFS), has also been undertaken to explore changes in earnings after periods of learning. Where **learner surveys** have been used, they have not included a comparison group meaning it is not possible to determine any increase in earnings that might have been expected anyway, for example as a result of inflationary pay increases.

Returns to learning accrue within a labour market context and the structure of the learning and labour market affects earnings returns. For example, across Europe when comparing the earnings returns for learners in countries with dual Vocational Education and Training (VET) systems (eg Germany) against others (including the UK) the effect of Continuing Vocational Education and Training (CVET) on wages was larger for learners in dual VET systems<sup>17</sup> than others (11 per cent compared to 6.5 per cent respectively) (CEDEFOP, 2011a). Other examples of the structural factors that will influence learners’ earnings returns include differences in average earnings between sectors, occupations, and regions. There are also earnings differences evident in the labour market on the basis of personal characteristics, such as gender and age, alongside qualification levels. The following factors will all influence a learner’s financial returns:

- **Regional variations** in earnings: earnings in London and the South East are higher than in other English regions (ONS, 2014).
- Variations in the earnings distribution by **sector**. As an example, in 2013 average gross weekly earnings were highest in the mining and quarrying sector (£810) and lowest in the accommodation and food services sector (£316) (ONS, 2014), and on average wages in the public sector are higher than those in the private sector (ONS, 2013). More recent research has demonstrated that areas such as Construction or Engineering and Manufacturing Technologies have earnings returns that are close to 10 percentage points higher than sector subject areas such as Adult Social Care or Child Development and Wellbeing, although the latter continue to produce good returns (Bibby et al, 2014).
- **Occupation**: In 2013, learners in *Sales and Customer Service* occupations, *Elementary Occupations* and *Caring and Leisure* occupations were at the bottom of

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<sup>17</sup> In dual systems learners combine working at an employer with vocational education at a vocational school.

the earnings distribution by occupation, with *Manager, Directors and Senior Officials* and *Professional Occupations* at the top (ONS, 2014).

- **Programme's vocational orientation and whether employer-funded:** Vocationally oriented training is likely to bring greatest economic returns (see for example Wiseman et al, 2013), and a European-wide study found that where employers paid for the training it had a 14 per cent greater effect than if the training was not employer funded for male learners, and a 15 per cent greater wage effect for female learners (CEDEFOP, 2011a).
- In addition, the **personal characteristics** of learners are also likely to influence the extent to which they are able to reap the financial rewards of learning in the labour market. For example, a learner's **age** will affect the length of their working life and hence the timeframe over which benefits can accrue, and average hourly earnings are higher for **men** than **women**. Despite a long-term downwards trend since 1997 (from 17.0 per cent) the pay gap between male and female full-time employees rose by 0.5 percentage points in the last year to stand at 10 per cent in April 2013 (ONS, 2013; ONS, 2014).
- Finally two further aspects affect the earnings returns: **whether an individual is in work**; and the **number of hours worked** (BIS, 2011).

These factors provide the context within which learners seek financial returns to learning. Studies have assessed returns over different time periods, from one through to seven years, and others have estimated lifetime earnings. This, alongside the variety of methods used to calculate earnings returns, creates challenges for synthesising the evidence in a consistent way as they result in different sized effects. Overall, however, both European-wide and England-only studies have found that learning and gaining qualifications have a positive impact on earnings in aggregate. The findings for aggregate effects on earnings are presented first, before discussion of the effects for varying levels and types of qualifications.

### 2.4.1 Aggregate effects

Using a number of European data sources CEDEFOP (2011a) found that learners with an International Standard of Education Classification (ISCED) Level 3<sup>18</sup> qualification who trained in the previous year had an earnings increase of 5 per cent for men and 9 per cent for women (although only the latter was significant). For learners with an initial ISCED 0-2<sup>19</sup> qualification training in the previous year the effect was an earnings increase of 11 per

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<sup>18</sup> ISCED Level 3 – Upper secondary education - More specialised education typically beginning at age 15 or 16 and/or completes secondary education in preparation for tertiary education, or to provide skills relevant to employment, or both.

<sup>19</sup> ISCED Level 2 – Lower secondary education - Designed to complete basic education, usually on a more subject-oriented pattern. It builds upon the learning outcomes from primary education (ISCED level 1) and aims to lay the foundation for lifelong learning and human development.



cent for men and 9 per cent for women (although the latter increase was not significant) (CEDEFOP, 2011a). In England, analysis of matched data exploring earnings before and after learning found that FE achievers earned on average £7,653 pre-learning and £8,977 post-learning, an increase of £1,324 (17 per cent) (Frontier Economics and IFS, 2011). These figures are depressed by the inclusion of learners who were out of work before learning (either unemployed or in learning) who were assigned zero earnings, and the study also included a proportion of individuals working part-time.

A recent survey of 4,000 FE learners in England found that on average after a period of FE learning learners had an average earnings increase of 8.5 per cent (this figure includes data for learners moving into employment). For learners employed before and after their learning, earnings increases were more modest, at 2.75 per cent, and it should also be noted that the survey did not contain a comparison group, so these increases cannot be put into a wider context (London Economics and Ipsos MORI, 2013). The returns to learning are dynamic over time, with some evidence suggesting that effects increase over time following completion (eg Dorsett et al, 2010; Cambridge Econometrics and Warwick Institute for Employment Research, 2013; Conlon and Patrignani, 2013).

Three studies have used BHPS to explore the earnings effects of lifelong learning. The studies by Dorsett et al (2010; 2011) undertook separate analysis for men and women, and indeed a key finding of the analysis by Blanden et al (2011) was the differential effects on earnings by gender. Dorsett et al (2010) examined the earnings returns to men from lifelong learning, which they defined as gaining a qualification after the age of 25. The authors found earnings returns for lifelong learners with no qualifications through to those with a prior qualification at Level 3, and either gaining a qualification at the same or at a lower level to their prior level of qualification, or upgrading their qualification level resulted in earnings gains (see Table 7) (Dorsett et al, 2011). A companion study using the same dataset to explore the effects of lifelong learning for women found there were also positive effects of lifelong learning on women's hourly earnings (Table 7). Overall these two analyses found that lifelong learning with no qualification upgrade is associated with higher wages, particularly for those with qualifications at Level 2 or lower. Where qualifications are upgraded as a result of lifelong learning, the apparent premium is larger still. This is particularly the case for those initially with Level 2 qualifications (Dorsett et al, 2010). By contrast, Blanden et al (2012) found a medium-run return for women of 10 per cent on hourly wages five years after learning. For men, initial suggestions of a similar positive return are eliminated when pre-qualification trends are taken into account.



**Table 7: Prior qualification level, Earnings, and Lifelong Learning, 1996-2008  
Average. Pooled Data**

Prior qualification level	Average hourly earnings (2005 prices)			Average hourly earnings (2007 prices)		
	Men			Women		
	No lifelong learning	With qualification, but not upgrading	With upgrading	No lifelong learning	With qualification, but not upgrading	With upgrading
0	£7.98	£9.40	£9.99	£6.24	£6.82	£7.16
1	£9.84	£10.50	£10.65	£7.81	£8.20	£8.96
2	£10.01	£10.69	£13.12	£7.55	£7.93	£12.59
3	£12.28	£12.35	£12.51	£9.84	£9.26	£11.01

Source: Dorsett et al (2010) Table 4, p.9; and Dorsett et al (2011), Table 3, p.15.

More recent research for Bibby et al (2014) has highlighted that all qualification categories provide positive and statistically significant earnings premiums; using three to five year averages (see Table 8). The authors however note that unobservable movement to HE from Level 3 and Full Level 3 qualifications may be depressing the returns and so therefore understating the mean estimates (Bibby et al, 2014).

**Table 8: Daily earnings premium of achievers relative to non-achievers**

Qualification achieved	Below Level 2	Level 2	Full Level 2	Level 3	Full Level 3	Level 4+
3 to 5 year average daily earnings premium	0.019	0.013	0.113	0.033	0.085	0.084

Source: Bibby et al (2014), Table 3, p.34.

### 2.4.2 Low level qualifications: ESOL, Skills for Life and Level 1

A recent literature review of the impacts and outcomes of adult participation in basic literacy and numeracy found a large body of evidence that gaining literacy and numeracy skills in adulthood had a positive effect on earnings, but concluded that there was a lack of evidence on whether and how far formal adult literacy and numeracy provision contributed to these returns (Vorhaus et al, 2011). As a result of this evidence gap being identified two studies were commissioned by the BIS to explore the impact of learning below Level 2, including the impact on earnings.

Both studies used matched administrative data, one analyzing five years of data and the other seven, and looked at the impact of learning on earnings, comparing learning completers to non-completers. The study examining seven years of data found that individuals completing Key Skills Level 2 Numeracy qualifications had a 15 per cent earnings premium within the first two years post completion, rising further to approximately 33 per cent by the sixth and seventh year. Level 2 Certificates in Numeracy and Literacy

are also associated with positive earnings returns (between 0 and 12 per cent during the first six years post completion) (Conlon and Patrignani, 2013).

Strong positive returns to low level qualifications were also evident in the study examining five years of data, whose results were disaggregated by age and qualification level. The table below shows the percentage change in earnings due to achieving a qualification, relative to non-achievement (see Table 9). For example, young people aged 19-24 who studied at Entry Level in 2007/8 had a 21 per cent increase in earnings. The results differ markedly by age group, level of learning and period of observation. The earning returns are generally higher for young people (Wiseman et al 2013). Higher returns for younger people were also observed by Conlon and Patrignani (2013). These authors found that individuals aged between 19 and 24 who completed a Level 1 vocational qualification achieved an initially higher earnings premium compared to older workers (5-6 per cent compared to 2 per cent and 4 per cent). However, this premium for younger workers gradually eroded over time (to just above zero in the seventh year), while the post-attainment earnings premium for older workers was maintained. Another study also noted erosion of returns over time, with learners achieving a qualification below Level 2 earning, on average, 5.6 per cent more than non-achievers in the first year following their learning spell, but with this decreasing to 4.7 per cent in the fourth year post-completion (Buscha and Urwin, 2013). However, Buscha and Urwin (2013) also found variation by age group with returns rising for 19-24 years olds achieving a below Level 2 qualification over time (4.4 per cent one year post-completion rising to 7 per cent in year four), but declining for learners aged 25 or over (the premium falls from 5.8 per cent in year old to 4.5 per cent four years later).

**Table 9: The effect on earnings of qualification, by qualification type and age (2007-2011)**

		2007/8	2008/9	2009/10	2010/11
<b>Aged 19-24</b>	<b>Entry level</b>	0.214***	0.201***	0.07	0.065
	<b>Level 1</b>	0.048*	0.089***	0.103***	0.111***
<b>Aged 25+</b>	<b>Entry level</b>	0.003	0.005	0.034*	0.014
	<b>Level 1</b>	0.015*	0.026***	0.023***	0.033***

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

Source: Wiseman et al (2013), Table 6.3, p.131.

Wiseman et al (2013) found that four years after learning, learners aged 19-24 who achieved a Level 1 had a weekly average wage around £32 higher than those who had not achieved the qualification. For learners aged 25 and over, the comparable advantage was around £12 per week. While these effects on earnings is not very large when observed on a weekly basis, viewed over a longer time frame it can be sizeable. For example, for achievement of a Level 1 qualification by a young learner (aged 19-24) in 2007/8 the increase was £12.90 extra a week, or £675 annually, £6,752 over 10 years and £27,000 over a 40-year period (Wiseman et al, 2013). Wiseman et al conducted a separate analysis of ESOL learning and found that in most cases and by most measures ESOL learning did not have any significant effect on outcomes, such as earnings.

A more recently update for BIS using matched administrative data found that the three to five year average earnings premium for those achieving a Level 1 or 2 English or maths qualification, relative to those who do not achieve, is 2.4 per cent (Bibby et al, 2014).

### 2.4.3 Level 2

Two studies have recently examined the earnings returns to Level 2 qualifications in aggregate, and similar to other levels of qualification the returns fluctuate over time. For example, Conlon and Patrignani (2013) found that while older workers had a steady earnings premium from Level 2 qualifications (4 per cent), the premium achieved by those aged 19-24 was initially higher and increased over time (for Level 2, from 7.4 per cent to 10.3 per cent after seven years). Buscha and Urwin (2013) instead found diminishing returns. Achievers at Level 2, but who fell below the requirements to be considered 'Full', secured the lowest immediate returns to earnings relative to non-achievers (2.1 per cent). By year four this earnings premium for Level 2 achievers had fallen to 1.6 per cent. Full Level 2 achievers had the highest earnings premium in the first financial year post-completion (18.5 per cent). This decreased, although it remained high, over the subsequent four years for Full Level 2 achievers (14.3 per cent difference in earnings by year four) (Conlon and Patrignani, 2013).

As observed for other qualification types, Buscha and Urwin (2013) find differences in earnings returns by gender and age. Women achievers whose highest learning aim is Full Level 2 have positive and significant estimated returns, but their earnings premiums are negligible over non-achievers at Level 2 (the premium is less than 1 per cent at Level 2 from years two to four). When examining age, for Level 2 qualifications, the earnings premium accrued by achievers aged 19-24 rises from 3.7 per cent to 6.3 per cent between two and four years after the end of learning. The premium for learners aged 25 and over is less than 1 per cent, however. For Full Level 2 qualifications, earnings for achievers in the 19-24 age group range from 20.5 per cent to 14.2 per cent and amongst the 25 and over age group premiums range from 13 per cent to 10.3 per cent (Buscha and Urwin, 2013). The authors noted that at Full Level 2 and Level 2 no consistent picture emerges that implies any over-arching pattern to premiums, and there is potentially a lot more happening than just age per se. There is the potential for average low returns to hide an amount of heterogeneity (Buscha and Urwin, 2013).

Amongst the population of Full Level 2 achievers, the average earnings return for those achieving Literacy or Numeracy Key Skills is six per cent compared to non-achievers, whilst the corresponding return for Full Level 3 achievers is 3.7 per cent. The authors further note that English and maths may be complementary alongside other, more 'full' or high level qualifications (Bibby et al, 2014, see Table 10).

**Table 10: Daily earnings premiums for subgroups of Level 1 and Level 2 English and maths achievers for a population of Full Level 2 achievers**

Achievement	Returns to daily earnings
Only Literacy Key Skills	0.035
Only Numeracy Key Skills	0.017
Literacy/Numeracy Key Skills	0.060
Only Literacy Certificate	0.020
Only Numeracy Certificate	0.018
Literacy/Numeracy Certificate	0.084

Source: Bibby et al (2014), Table 40 p.67

### 2.4.4 Level 3

Achievers at Level 3 (which fall below the equivalence required to be considered 'Full') secure immediate returns to earnings relative to non-achievers of 2.9 per cent. By year four this earnings premium rises to 5.4 per cent for Level 3 achievers. Full Level 3 achievers have an earnings premium in the first financial year post-completion of 11 per cent. This remains constant for Full Level 3 achievers over the following four years (Buscha and Urwin, 2013). Analysis over a longer timeframe found that Level 3 qualifications have lower earnings returns in the first two to three years following completion, but that this increases quite quickly in subsequent years (Conlon and Patrignani, 2013). Estimated earning premiums for Level 3 and Full Level 3 achievers both increase when learners who move on to Higher Education (HE) study are removed from the analysis (6.6 per cent and 23.2 per cent in the first year post completion, respectively) (Buscha and Urwin, 2013).

The learning mode affects returns at Level 3. Conlon and Patrignani (2013) are greater returns associated with the completion of vocational qualifications when undertaken through the workplace route as opposed to the classroom route. Individuals completing qualifications at Level 3 through the classroom route do not achieve an earnings premium relative to non-completers until four years post qualification attainment. In contrast, for those individuals attaining the qualification through the workplace route, the earnings returns are immediate and significant – standing at between 7 per cent and 8 per cent relative to non-completers in the first three years post attainment. This finding also holds for Level 2 qualifications (Conlon and Patrignani, 2013).

### 2.4.5 Apprenticeships

Expanding apprenticeships is a central component of the *Skills for Sustainable Growth* strategy, and learners who complete these qualifications can expect an earnings return. The lifetime benefits of completing apprenticeships at Level 2 and 3 are significant and are estimated at between £48,000 and £74,000 for Level 2 and between £77,000 and £117,000 for Level 3 (BIS, 2011). More recent research demonstrates there are significant and substantial earnings returns associated with apprenticeships: the three to five year average earning premium (as compared to non-achievers) is estimated at 11.1 per cent, whilst for Level 3 the corresponding return is 15.6 per cent (Bibby et al, 2014).

A survey of over 4,500 apprentices who had completed their programme one to three years previously was undertaken in order to assess the outcomes, including earnings returns (BIS, 2013). The survey found that the average take-home salary (after tax and NI deductions) among former apprentices who had at least one employment spell since completing the programme was £14,563. This was higher for apprentices that had been in work for longer since completing their qualification (£15,107 compared to £13,574) and for apprentices who completed a Level 3 qualification. On average they earned just under £2,800 more than Level 2 completers (£16,294 compared to £13,507). There were noticeable differences in returns observed by type of apprenticeship framework. For example, apprentices from frameworks in *Engineering and Manufacturing Technologies* (£18,305), *Construction, Planning and Built Environment* (£17,021) reported the highest earnings. Possibly because of gender segregation between apprenticeship frameworks, male former apprentices reported higher average take-home salaries than women (£16,530 compared to £12,031 respectively). Former apprentices working in an area related to their apprenticeship had higher average salaries than those working in an unrelated job sector (£14,958 compared £13,322), perhaps indicating the occupationally specific value of the skills acquired during an apprenticeship, and a lesser degree of transferability across sectors than other qualifications (BIS, 2013).

Variations in returns by apprenticeship framework were also found in analysis of administrative data spanning a seven-year period which found that annual earnings premiums to the fields of *Engineering and Manufacturing Technologies* and *Construction, Planning and the Built Environment* at Level 3 offer learners the greatest earning returns – essentially between 20 per cent and 30 per cent in the first six years post qualification attainment (Conlon and Patrignani, 2013).

The same study also found that higher level apprenticeships offer the largest earnings returns: an individual gaining a Level 3 apprenticeship has an annual earnings benefit of between 15 per cent and 20 per cent in each of the first six years after the qualification is attained (relative to a non-completer). Earlier research also found that Level 3 (Advanced) Apprenticeships had some of the largest long-term impacts on learners (compared to NVQs at Levels 2 and 3) (Cambridge Econometrics and Institute for Employment Research, 2013). Buscha and Urwin (2013) have found the earnings premium for Level 2 (intermediate) and Level 3 (advanced) apprentices is roughly 20 per cent one year post-completion, relative to non-achievers. After four years, this earnings premium falls to 12.6 per cent for those who completed a Level 2 apprenticeship and 17 per cent for those who completed a Level 3 apprenticeship (Buscha and Urwin, 2013). Another study estimated the returns for apprenticeships between 2004-09 as 22 per cent for Level 3 and 12 per cent for Level 2, and the authors noted a divergence in the returns between Level 2 and 3 since 2004-05 data, with the returns for Level 3 increasing over time and returns to Level 2 decreasing (BIS, 2011).

#### 2.4.6 National Vocational Qualifications (NVQs)

As with other qualifications, on balance the evidence suggests positive earnings returns for NVQs. The lifetime benefits of the acquisition of NVQs have been estimated at between £18,000 and £36,000 for Level 1, £24,000 and £49,000 for Level 2 and between £36,000 and £66,000 for Level 3 (BIS, 2011). However, two studies have found negative returns for



NVQs at low levels on average, which BIS (2011) noted could be explained by the fact that NVQs have been predominately taken by older adults in recent years. One study, an analysis of the British Cohort Study, found that average net wage returns increased slightly over time for NVQ Level 3, but that returns to NVQ Level 2 qualifications and NVQ Level 1 qualifications decreased throughout the period and were negative (BIS, 2011). A second found that individuals with NVQ Level 2 had an earnings penalty (i.e. a negative effect on earnings) when compared to individuals with Level 1 qualifications (Conlon and Patrignani, 2010). All the studies found some variation in the scale of these returns over time and variation between qualification levels.

One analysis of matched administrative data estimated an earnings premium of 24.1 per cent for NVQ Level 2 achievers in year one, which dropped to just above 18 per cent four years after completion (Buscha and Urwin, 2013). By contrast, the authors found that even after taking into account progression into higher education, the analysis discovered a slight dip in returns in the second and third year after completion of an NVQ Level 3 which recovered in year four (from 21.5 per cent in year one, to 21.8 per cent in the fourth year) (Buscha and Urwin, 2013). A second analysis of matched administrative data found that Level 3 NVQs return a small premium immediately post-completion (2.8 per cent, rising to 15 per cent seven years after) and Level 3 NVQs offered the best earnings premium when compared to other vocational qualification types and levels. Level 2 NVQs had a 6 per cent earnings premium over the same seven year period (Conlon and Patrignani, 2013).

As found for apprenticeship frameworks, there is variation in earnings returns by subject. The most popular subject (*Health, Public Services and Care*) is associated with relatively low and stable returns at Level 3 (ranging between 3 per cent and 6.5 per cent over the period of analysis, relative to non-completers), while the returns at Level 2 are stronger (ranging between 8 per cent and 15 per cent over the period) (Conlon and Patrignani, 2013). The subjects appearing to offer the strongest returns at Level 3 are *Engineering and Manufacturing Technologies* (15 per cent four years post-completion) and *Construction, Planning and the Built Environment* (ranging between 15 per cent and 20 per cent in the seven years post-attainment (Conlon and Patrignani, 2013; BIS, 2011).

#### 2.4.7 City and Guilds, BTECs and other vocational qualifications

Studies have used secondary data sources to explore the earnings returns of a number of vocational qualifications, including City and Guilds, BTECs, and RSA secretarial qualifications. Due to the differing approach and types of comparator groups, the returns to qualifications differ between studies and are not directly comparable.

The lifetime benefits of the acquisition of City and Guilds have been estimated at between £36,000 and £60,000 for Level 1, £42,000 and £70,000 for Level 2 and between £55,000 and £88,000 for Level 3. The lifetime benefits for the acquisition of BTEC qualifications have been estimated at between £39,000 and £60,000 for Level 2 and £44,000 and £63,000 for Level 3 (BIS, 2011).

The primary source for analysis of the returns to other vocations qualifications is Conlon and Patrignani's (2010) analysis of LFS data. These authors estimate the lifetime earnings for learners of range of vocational qualifications, assuming this is the individual's highest

level of qualifications, and comparing it to a counterfactual group, which tend to be individuals with qualifications at the level immediately below (see Table 56, Table 57 and Table 58).

The returns to Level 3 vocational qualifications are significant when compared to Level 2 qualifications (Table 56). Individuals that have a BTEC Level 3 qualification have been estimated to receive a 14.2 per cent premium over individuals with a Level 2 qualification in one study and a 20 per cent premium in another (Conlon and Patrignani, 2010; BIS, 2011). The lowest marginal returns for vocational qualifications at Level 3, although still positive, are for NVQ Level 3 qualifications, an estimated 4.6 per cent compared to individuals with a Level 2 qualification in Conlon and Patrignani (2010) and 10 per cent in BIS (2011).

The returns for Level 2 vocational qualifications are all positive and significant when compared to the returns for individuals holding a Level 1 qualification, although the scale of the returns is modest (Conlon and Patrignani, 2010). At Level 1 all the vocational qualifications investigated offered positive returns in comparison to having no qualifications, with returns of between 9.1 per cent and 17 per cent). There are some differences by gender, with women achieving a Level 1 BTEC or RSA qualification receiving greater earnings returns than men with the same qualifications, while City and Guilds and BTEC qualifications provide the best earnings returns for men at this level (Conlon and Patrignani, 2010).

One study explored variations in earnings returns by age and found that individuals under 25 years who obtain vocational qualifications can expect a greater return in earnings compared to older cohorts. Only for BTEC Level 2 qualifications were returns for those over the age of 25 higher than for younger groups (Cambridge Econometrics and IES, 2013).

## 2.4.8 Learner characteristics

### **Gender**

Through analysis of matched data covering a seven-year period (2004/05 to 2010/11), Bibby et al (2014) found that estimated daily earnings premiums for women are lower than those reported at aggregate level: for example 9.4 per cent for Full Level 2 qualification, as compared to 11.3 per cent at aggregate level. They suggest that whilst the Level 3 returns are likely to be underestimated for women – where more HE learning and/or part-time work by women is obscured – the lower Level 2 and below Level 2 results may be more accurate, which is of great concern (Bibby et al 2014).

### **Age**

Bibby et al (2014) further noted that earnings returns to FE learning were differentiated according to age of learner, where estimated earnings premiums for learners aged 19 to 24 are higher than those for learners aged 25 and over, regardless of the level of learning (Bibby et al, 2014). However, it should be noted that younger learners will have longer in the labour market to realise such returns, influencing the effect of learning.



### 2.4.9 Other contextual factors

The mode of learning may also influence wage returns, as shown by Bibby et al (2014). As most learning below or at Level 2 is delivered through vocational CBL, the earnings premiums are similar to the aggregate results, but vocational WBL demonstrates higher returns: 7.4 per cent for below Level 2 and 4.5 per cent for Level 2. Returns to Full Level 2 are more evenly distributed, but academic courses at Level 3 and Full Level 3 show initial negative returns at one and three years. The authors flag their concern that these returns to academic qualifications may be obscuring progression to HE, particularly as the same erosion of returns is not present at a similar level for either vocational WBL or CBL (Bibby et al, 2014, see Table 11).

**Table 11: Daily earnings premiums of academic, vocational CBL achievers relative to non-achievers**

Level of qualification	Academic	Vocational CBL	Vocational WBL
<b>Below Level 2</b>	-	1.5	7.4
<b>Level 2</b>	1.9	1.0	4.5
<b>Full Level 2</b>	11.6	10.3	9.6
<b>Level 3</b>	4.5	2.9	-
<b>Full Level 3</b>	0.3	5.8	9.0
<b>Level 4+</b>	-	8.2	8.7

Source: Bibby et al (2014), Tables, 23, 24 and 25, pp.52-3

## 3 The contribution of FE and skills to learning participation and progression

### 3.1 Key findings

- Progression in learning generally takes place in the short to medium term following course completion (i.e. one-to-three years later), and is seen amongst a large share of FE learners.
- Learner surveys exploring a variety of educational settings consistently show that high proportions of adult learners attribute their progression in learning and their enthusiasm for education in general towards a positive FE experience.
- Learners who complete their original learning aim are more likely to progress to further learning.
- Adult learners initially achieving Level 1 are more likely than those achieving Entry Level qualifications to progress to qualifications at Level 2 or above.
- Apprentices in the areas of Engineering, Accountancy, and Health and Social Care have some of the highest rates of progression for this form of work-based training between qualification levels.
- Vocational qualifications such as BTECs which focus on providing learners with general transferable skills as opposed to occupational skills have the highest rates of learner progression, particularly to Higher Education, as compared to other vocational qualifications such as NVQs or City and Guilds and RSA programmes.

### 3.2 On-going participation in learning

A very limited amount of evidence was available that detailed the role played by FE provision in individual's on-going participation in learning. Of the dimensions noted in the analytic framework, the evidence only related to the contribution of FE and skills as a route out of being not in education, employment or training (NEET).

#### 3.2.1 Contribution of FE as route out of NEET status

The body of research on NEET young people tends to focus on those aged 16-19. Only one study was found that addressed the contribution of participation in FE as a route out of NEET status, and this concerned an initiative targeting 19-24 year olds who were NEET (McCrone et al, 2013). In the academic year 2011-12, BIS provided additional funding to colleges and third sector organisations to develop their existing training provision for this cohort. These funds were intended to support flexible vocationally-orientated programmes

and intensive individual support for learners, with a focus on enhancing employability skills. The majority of provision was short and part-time lasting no more than 16 hours per week so that learners could continue to claim JSA. The length of these courses varied between one day and five months. As a result of this training and support, providers were expected to get participants to a stage where they were able to undertake further (work-based) training and progress into an apprenticeship or other form of employment. McCrone et al's (2013) study investigated the extent to which a sample of providers had achieved this goal, and although providers found it difficult to comment on learner outcomes of their programmes they did assert that learners were both confident and ready to progress. Of the small sample of learners at a later point, 40 per cent were still on the same course, 21 were working, waiting to begin a new job or course or volunteering and the remainder were still NEET (McCrone et al, 2013).

### 3.3 Progression in learning

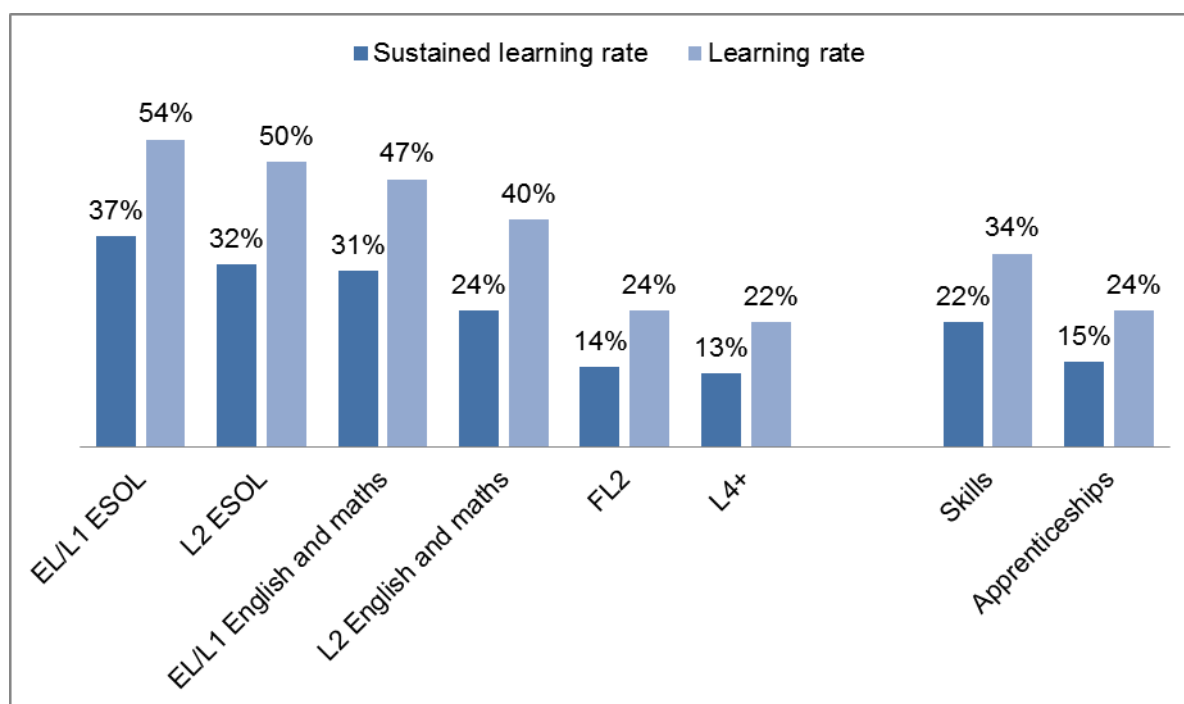
#### 3.3.1 Progression within and beyond FE

At the aggregate level, the literature reviewed as part of this study suggests that a large share of adult learners who engage in Further Education will subsequently undertake further learning. A recent study undertaken on behalf of BIS (2014b) analysed the learning outcomes of all learners aged 19 and over who completed an FE learning aim in the 2010-11 academic year.<sup>20</sup> Sustained and non-sustained learning outcomes were assessed by matching the 2010-11 ILR dataset to the ILR and Higher Education Statistics Agency (HESA) dataset for the following academic year (2011-12). Sustained learning outcomes were defined as an individual undertaking learning at either a Further Education or Higher Education provider for at least one day a month for six consecutive months between October 2011 and March 2012; non-sustained learning outcomes were defined as individuals undertaking learning for at least one day a month in any month within this timeframe. The results showed that, of the 1.5 million learners undertaking an eligible Further Education course in 2010-11, 21 per cent were in sustained learning in the subsequent academic year; just under half of this number were also in sustained employment. When non-sustained learning outcomes were also considered, the combined proportion of learners in the 2010-11 academic year who undertook further study increased from 21 per cent to one third of the entire sample (33 per cent). When findings are disaggregated by type of provision, Entry Level/Level 1 ESOL provision has the highest sustained learning rate, whilst Level 4+ provision has the lowest (BIS 2014b, see Figure 14).

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<sup>20</sup> The analysis covers learning aims that were funded either by the Skills Funding Agency through the Adult Skills Budget. It includes adult (19+) apprenticeships.

**Figure 14: Sustained and non-sustained learning rates from different types of adult FE provision**



Note: The secondary non-sustained learning measure requires learning at any point between October 2011 and March 2012 rather than in all of the six months. EL/L1 – Entry Level/Level1, L2 – Level 2, FL2 – Full Level 2, L4+ - Level 4+

Source: BIS (2014b)

The results show some differentiation according to learners' highest educational level. For instance, learners who achieved an Entry/Level 1 qualification during the 2010-11 academic year had higher rates of **sustained** learning in 2011-12 (27-37 per cent across English and maths, ESOL and 'Other' provision) compared to learners who achieved a Full Level 2 (14 per cent) or a Full Level 3 (22 per cent) qualification (BIS, 2014b). While it is not possible to tell from this analysis whether the further learning undertaken by this cohort was at a higher level, the educational pathways that many learners will take into work is evidenced by the higher proportions of learners achieving Full Level 2 and Full Level 3 qualifications who subsequently entered sustained employment (BIS, 2014b).

A more thorough breakdown of further learning outcomes, which considers rates of learner **progression** between different types and level of vocational qualification (ie BTEC, NVQs, RSA and City and Guilds qualifications at Levels 1-3) is provided by Conlon and Patrignani (2010). The authors use information from the Labour Force Survey to illustrate the share of learners with a given qualification who subsequently achieve the next learning level. Their analysis is restricted to 2008-2009, given that ONS data collection practices in earlier years did not detail the order in which qualifications were obtained (Conlon and Patrignani, 2010). An important caveat to this research in the context of this present study is that Conlon and Patrignani's analysis includes all learners aged 16 and over. The rates of

learner progression presented may therefore be higher than they would be for a disaggregated analysis of adult learners (ie those aged 19 and over).

The results show that learners that hold BTEC qualifications have high rates of progression between learning levels compared other types of vocational qualification. In their analysis of two years of data, Conlon and Patrignani (2010) found that over a fifth (25.9 per cent) of learners who previously held a BTEC Level 1 qualification achieved the subsequent learning aim within the two-year time period. The transition rates between BTEC Level 2 and Level 3, and BTEC Level 3 and Level 4, meanwhile, were approximately 40.4 per cent and 27.4 per cent, respectively. It should be noted that 16-17 year olds were included in this analysis, which may overemphasise the rates of progression.

Broadening the scope of their analysis to include LFS data for the years 1996 to 2009 Conlon and Patrignani observed the proportion of learners who held vocational qualifications alongside higher education qualifications. These results are again disaggregated by qualification type and level. During this analysis period, higher proportions of learners in possession of BTEC qualifications at Levels 2, 3 and 4 also held a first degree (9.2 per cent, 14.7 per cent and 17.3 per cent, respectively) compared to other types of vocational qualification, but it is not possible to infer this is all upward progression from these data.

Commenting on their overall research findings, the authors note that qualification routes such as BTECs that provide their holders with, '*general transferable skills (rather than occupational skills)*' appear to offer better rates of educational attainment going forward than other vocational qualifications such as NVQs, RSAs and City and Guilds (Conlon and Patrignani, 2010, p.13). However, it is not clear how this will impact on the **immediate** labour market returns that these qualifications provide. In more general terms, Conlon and Patrignani comment that the research findings challenge a common perception that vocational qualifications and academic qualifications are mutually exclusive, and that undertaking a vocational qualification precludes learners from ever attaining higher education qualifications.

In their 2013 study, Wiseman et al also considered the rates of learner progression to higher level qualifications. Their analysis focused on adult learners (ie aged 19 and over) who studied for a learning aim below Level 2 (non-ESOL learning) at a Further Education provider in the academic year 2005-06. Rates of higher learning achievement were tracked over the subsequent four year period (ie up till 2010), and results were disaggregated by two age cohorts: 19-24 year olds and those aged 25 and over. The research attempts to estimate the **impact** – that is, the causal effects - of adult further education on an individual's progression in learning by adopting a control group design. In the absence of a direct comparison group (funding for below Level 2 learning is available to all people with skills gaps), the authors compared the higher learning achievement rates of those who successfully achieved their below Level 2 learning aim with those who did not

achieve this learning aim<sup>21</sup> (Wiseman et al, 2013). A limitation of this approach is that any differences observed between these two groups may also be attributable to different levels of ability as well as motivation to undertake training, which would affect their completion/non-completion status and the likelihood that they would undertake further training in future.

For 19-24 year olds who studied at Entry Level, the results show a six percentage point difference between non-achievers and achievers in terms of the probability that they would subsequently attain a Level 2 qualification in the following four years (ten per cent of non-achievers and 16 per cent of achievers) (Wiseman et al, 2013). Rates of progression from Level 1 study to Level 2 were higher among this age cohort (for achievers and non-achievers), although a similar gap (of 7 percentage points) was observed between those who attained their original learning aim and those who did not. The Level 2 achievement rates of below Level 2 learners aged 25 and over were lower than in the younger age group, although there was a five percentage point and a seven percentage point gap in further attainment between achievers and non-achievers with Entry level and Level 1 learning aims, respectively (Wiseman et al, 2013, see Table 12).

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<sup>21</sup> This is done by first calculating the achievement rate of below Level 2 non-achievers as the ratio that attained Level 2 qualifications in the following four years over the total number of below Level 2 non-achievers. The estimated impact of achieving the below Level 2 learning aim on the probability of subsequent achievement is then presented as a percentage change increase.

**Table 12: Progression to higher qualification levels within first 48 months after leaving a (non-ESOL) Below Level 2 course**

		Below Level 2 non-achievers rate of L2 achievement	Impact of achievement in Below Level 2 (ppoints change)	Derived Below Level 2 achievers rate of L2 achievement	Below Level 2 non-achievers rate of L3 achievement	Impact of achievement in Below Level 2 (ppoints change)	Derived Below Level 2 achievers rate of L3 achievement
<b>Age 19-24</b>	<b>Entry Level</b>	0.103	0.060***	0.163	0.028	0.006	*)
	<b>Level 1</b>	0.152	0.068***	0.22	0.05	0.018***	0.068
<b>Age 24+</b>	<b>Entry Level</b>	0.089	0.045***	0.134	0.025	0.010***	0.035
	<b>Level 1</b>	0.118	0.070***	0.188	0.036	0.014***	0.05

Source: Wiseman et al (2013), Table 6.2 p.130



The same analysis was conducted looking at the Level 3 achievement rates of below Level 2 achievers and non-achievers over the same period (Wiseman et al, 2013). The Level 3 achievement rates of below Level 2 non-achievers were lower than the Level 2 achievement rates. The rate of Level 3 achievement among below Level 2 non-achievers was between 2.5 and 5 per cent, and the probability of progressing to Level 3 compared to below Level 2 achievers was between 1 and 2 percentage points (the results were non-significant for Entry Level learners aged 19-24) (Wiseman et al, 2013).

On the basis of these findings, the authors noted that a general message from the research was that, *'learners initially achieving higher level programmes (Level 1 as opposed to Entry Level) benefit more in terms of the probability of subsequently progressing to qualifications at Level 2 or above'* when this was considered over a four year post-study period (Wiseman et al, 2013, p.131). These findings complement those of a study reported earlier which noted that learners achieving an Entry Level or Level 1 qualification were more likely to continue in learning than learners achieving a Level 2 or Level 3 qualification (BIS, 2014b).

A number of studies also report 'softer' learning outcomes for individuals who engage in adult Further Education. Survey methods are typically used for this research, which include self-reported measures. Two such surveys were undertaken by London Economics and Ipsos MORI (2013a; 2013b) with separate learner cohorts who took part in FE delivered provision in the academic years 2010-11 and 2011-12. Both surveys used the ILR as a sampling frame. The initial survey was undertaken with a sample 4,000 learners (including achievers and a small sample of non-achievers) (London Economics and Ipsos MORI, 2013a) and the later survey with a sample of 1,955 learners not in paid employment prior to the start of their course (London Economics and Ipsos MORI, 2013b).

The findings from both surveys showed that a high proportion of respondents either agreed or strongly agreed that they had become more enthusiastic about learning as a result of completing their course. Seventy-nine per cent of respondents who had achieved their learning aim in 2010-11 provided this response, compared to 63 per cent of non-achievers (a difference of 16 percentage points) (London Economics and Ipsos MORI, 2013a). Disaggregating these results by gender, women were more likely to agree with this statement than men (80 per cent compared to 78 per cent). The survey also sought to gauge learners' perceptions of the extent to which the course had made them more likely to undertake further learning at a higher level: 80 per cent of achievers stated that it had, compared to 65 per cent of non-achievers (London Economics and Ipsos MORI, 2013a).

For the 2011-12 survey cohort, who were not in paid employment prior to starting their course, 84 per cent reported that they were more enthusiastic about learning (London Economics and Ipsos MORI, 2013b). A similar proportion (85 per cent) stated that their course had made them more likely to undertake further learning and training, and 79 per cent indicated that it had made them more likely to undertake further learning at a higher level. The high level of enthusiasm about the prospect of further (higher level) learning among this sample is encouraging given that over a fifth (28.5 per cent) cited a lack of qualifications or skills as a main barrier to employment (London Economics and Ipsos MORI, 2013b).

The authors commented that the aggregate findings from this research lent support to, ‘*the widely held belief*’ that training leads to further training, which in itself is, ‘*a stepping stone to higher and more economically productive skills acquisition*’ (London Economics and Ipsos MORI, 2013b, p.53).

### 3.3.2 Work-based training and apprenticeships

A number of studies considered as part of this review observed the progression in learning of individuals undertaking work-based training, such as an apprenticeship, to another (higher level) course of this type. For instance, as part BIS’s on-going evaluation of apprenticeships in England, the self-reported further learning outcomes of individuals who completed their programme of learning one to three years previously were detailed in the findings from a 2013 survey (BIS, 2013).

The results showed that, of the 4,519 former apprentices surveyed, over a third of former Intermediate Level Apprentices (Level 2) had progressed to an Advanced Level Apprenticeship (Level 3) since completing their original learning aim. Progression was more common among learners who had completed their programme around three years previously (long-term completers) compared to those who had completed their programmes one to two years previously (medium-term completers): 40 per cent compared to 28 per cent, respectively. Considering the results by framework, former apprentices in area of *Health, Public Services and Care* had the largest share progressing to further learning (47 per cent). This was followed by former apprentices in the areas of *Engineering and Manufacturing Technologies* (42 per cent) and *Leisure, Travel and Tourism* (40 per cent) (BIS, 2013).

Former apprentices who had not engaged in further training were asked about the likelihood that they would undertake a higher level NVQ apprenticeship in the next two to three years. A large minority commented that this was likely (42 per cent), although 55 per cent stated that it was unlikely (BIS, 2013). Medium-term completers were more likely to consider progressing than long-term completers (54 per cent compared to 35 per cent), as were former apprentices at Intermediate Level compared to Advanced Level (44 per cent compared to 40 per cent) (BIS, 2013). Disaggregating the results by framework, the findings show that former apprentices in the area of *Health, Public Services and Care* were the most likely to undertake an apprenticeship at a higher NVQ level in future (58 per cent), while former apprentices in the area of *Construction, Planning and the Built Environment* were the least likely (29 per cent) (BIS, 2013). Given that these findings are based on self-report measures, however, these results should only be viewed as indicative of the future engagement in higher level learning among these groups.

The progression of former Advanced Level Apprentices to Higher Level Apprenticeships (Level 4) is considered in a separate article by Joslin and Smith (2014). The researchers provide a more complete picture of long-term progression among former apprentices by matching the ILR with HESA datasets over a seven-year period. Advanced Level Apprenticeship cohorts starting apprenticeships in 2005-6 to 2010-11 are tracked as they enter HE for the first time up to the academic year 2011-12. The findings show that, of the 2005-06 Advanced Level Apprenticeship cohort, 18.8 per cent progressed to a Higher Level Apprenticeship over the seven year period (Joslin and Smith, 2014). Of those that

did progress to HE for the first time, a large number did so in the three years immediately following the completion of their Advanced Level Apprenticeship (11.7 per cent).

Disaggregating these results by the type of apprenticeship framework undertaken, the data show that learners who completed an Advanced Level Apprenticeship in the area of Accountancy in 2005-06 had the highest immediate and long-term progression rates (66.6 per cent and 69.4 per cent, respectively) followed by former apprentices in the area of Engineering (37.2 per cent at three years and 47.3 per cent at seven years) (Joslin and Smith, 2014, see Table 13). These results also suggest that the vast majority of Advanced Level Apprentices in these framework areas will progress to HE in the three years immediately following their original programme of learning (96 per cent of Accountancy apprentices and 79 per cent of Engineering apprentices) (Joslin and Smith, 2014). Former apprentices in the areas of *Heating, Ventilation, Air Condition and Refrigeration*; and *IT services and development*, meanwhile, had the lowest progression rates, with less than five per cent of learners progressing over the entire seven year period (Joslin and Smith, 2014, p.51).

**Table 13: Proportions of Advanced Level apprentices entering HE for the first time (per cent)**

	Account- ancy	Engin- eering	Health and Social Care	Hospitality and Catering	Gas Industry	Heating, Ventilation, Air Conditioning and Refrigeration
Immediate HE entry	66.6	37.2	25.1	3.8	0.9	0.5
HE entry tracked for 7 years	69.4	47.3	36.0	8.7	4.0	4.2

Source: Joslin and Smith (2014), Table 28 p.51

Joslin and Smith also consider the immediate progression rates (i.e. within a three year period) of the separate learner cohorts that completed an Advanced Level Apprenticeship in the academic years 2005-06 to 2010-11. The findings show that the overall progression rate gradually fell from 11.7 per cent to 9.5 per cent over this period. However, the authors attribute this trend to the large increase in the volume of Advanced Level Apprentices aged 25 and over across these years (Joslin and Smith, 2014): learners within this age group are more likely to be existing employees and will thereby have lower rates of progression than younger apprentices who have yet to settle into employment.

### 3.3.3 Skills training for benefit claimants

A few articles from the sample of selected literature documented the progression in learning of benefit claimants who had been signposted or referred to jobsearch or vocational skills training by Jobcentre Plus. In two of these, Adams et al (2011a; 2011b) assessed claimants' engagement and attitudes towards further learning following their participation in the Work-Focused Training Strand of the 6MO. This activity strand

provided customers who had been claiming JSA for six months with the opportunity to participate in a short-term course to acquire skills in demand in the local labour market.<sup>22</sup> While the primary focus of the 6MO was to help claimants to secure employment, the extent to which customers were keen to continue to upskill and engage in further self-development was an important tangential outcome.

The evaluation of the 6MO included a survey of 1,001 claimants who engaged in the Work-Focused Training Strand of the 6MO in 2010. It was supplemented by a follow-up survey 12 months later with 405 participants who agreed to be re-contacted (Adams et al, 2011b). Consistent with the findings from other learner surveys detailed throughout this chapter, a high proportion of respondents to the initial survey (75 per cent) indicated that they were now either 'a bit more' or 'much more' enthusiastic about undertaking further learning or training in future as a result of participating in the Work-Focused training strand (Adams et al, 2011a). Again, it was found that claimants who completed their training were likely to be 'much more' enthusiastic about the prospect of undertaking further learning than those who left early (49 per cent of completers compared with 37 per cent of non-completers) (Adams et al, 2011a). However, the findings obtained from the follow-up survey that sought to assess participants' continued engagement in learning were less clear cut.

### 3.3.4 Community Learning and family learning

Several studies included in this review observed the further learning outcomes of adults who had participated in Community Learning, and the circumstances that facilitated or inhibited their continued engagement in education. Community Learning is more flexible and informal than the provision offered by FE colleges. It describes a diverse range of adult learning programmes that focus on developing new skills, on re-engaging individuals with learning and preparing them for progression to formal courses, and/or building learners' confidence in supporting their children with learning (Harding et al, 2014a).<sup>23</sup>

Survey research by Harding et al (2014a) of 1,915 learners who had completed a Community Learning course 12 months previously showed that 43 per cent of respondents had engaged in further learning. Of this number, 47 per cent had undertaken one other course, while over a fifth (23 per cent) had taken between three and five short courses. A large share of respondents again attributed their continued engagement in education to their learning experience on the Community Learning course (Harding et al, 2014a).

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<sup>22</sup> The pre-employment work-focused training undertaken by the sample of claimants who had taken up the six-month offer included courses in IT, including the European Computer Driving Licence (ECDL); CSCS/SIA/Forklift licence; sector specific training; health and safety and first aid; numeracy, literacy or employability skills training. The length of these courses varied from less than a week to more than 10 weeks, and were delivered by FE colleges. Just under half of Work-Focused Training Strand participants undertook a training course that led to qualification (48 per cent). The levels of qualification varied from Entry Level to Level 3. Most participants were undertaking a Level 2 qualification.

<sup>23</sup> Learning providers categorise this provision as follows: Personal and Community Development Learning; Family English, Maths and Language (formerly Family Literacy, Language and Numeracy); Wider Family Learning and Neighbourhood Learning in Deprived Communities.

For those respondents who had not progressed to further learning the main reasons for doing so related to their own personal circumstances and the limited opportunities they presented. For instance, a third of respondents (33 per cent) stated that they did not have enough time to engage in further learning, while others were unable to continue to participate due to family commitments (18 per cent), illness or disability (11 per cent) and the cost of training (13 per cent) (Harding et al, 2014a).

Despite these immediate barriers to further learning, 81 per cent of survey respondents stated that they would still like to engage in further learning courses or activities in the next two years, with the vast majority (85 per cent) stating that it was likely or very likely that they would do so (Harding et al, 2014a).

A study by Swain et al (2014) focused on the further learning outcomes of learners taking a Family Literacy<sup>24</sup> course delivered in a Community Learning setting. In broad terms these courses aim to help parents and carers improve their self-confidence in supporting their child's literacy development. The research consisted of focus groups and interviews with a total of 101 parents from 74 Family Literacy courses roughly three months after the completion of their course.

The findings showed that, consistent with the results of Harding et al's (2014a) study, just over half (52 per cent) of interviewees had attended a further course in the short time following the completion of their Family Literacy programme (Swain et al, 2014). It was common for these courses to relate the further development of an interviewee's functional skills such as family numeracy; literacy, English and ESOL provision; and training in computing and IT. The report authors noted that personal development courses were also popular and included first aid, childcare/child development and parenting.

In contrast to the findings drawn from other learner surveys included in this review, few interviewees attributed their engagement in further learning to their experience of the Family Literacy course. However, the report authors highlighted that the sample's course choices (and the indication given by many interviewees that they were continuing their learning with the same group and tutor) contradict these perceptions and showed that the local Family Literacy provision that interviewees had attended had helped to influence these decisions (Swain et al, 2014).

This research also looked at factors that prevented individuals from engaging in further learning. The results broadly reflect those taken from Harding et al's (2014a) survey of community learners, with concerns about course cost, childcare commitments and the timing of provision identified by interviewees as common barriers to further learning, alongside the need to travel (Swain et al, 2014). The authors stated that there was some indication that interviewees '*associated these barriers with college-based provision*' (Swain et al, 2014, p.86).

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<sup>24</sup> Now known as Family English.



# 4 The contribution of FE and skills to learners' children

## 4.1 Key findings

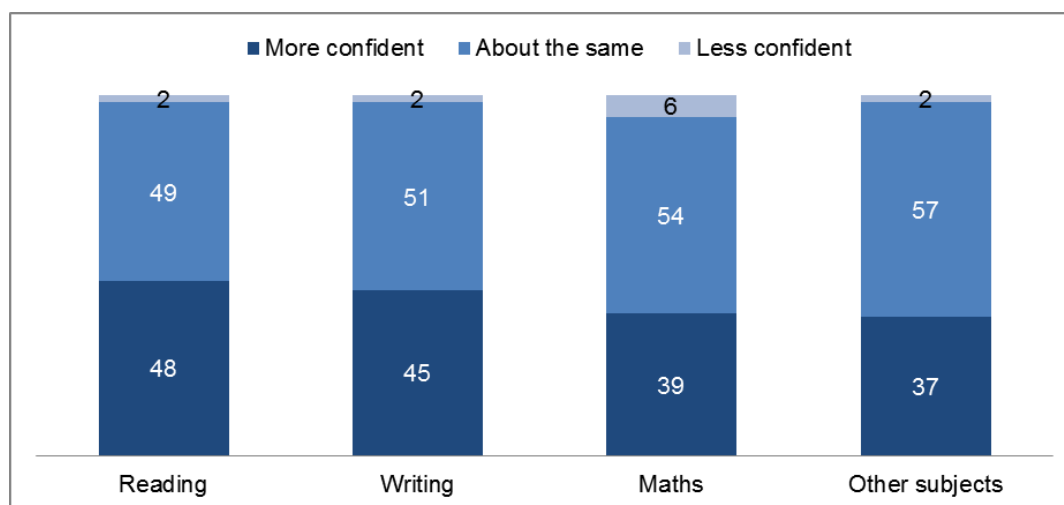
- The direct and indirect benefits of family learning are broad and varied.
- There is some evidence of an observable link between adult learning and the early years' development of learners' children, and a strong intergenerational correlation between parent and child's cognitive ability.
- The effect of adult learning appears to make the largest contribution to the early years' development of children, with the impact decreasing as the child gets older.
- Evaluations of some family learning programmes have found they make the largest contribution to learners from disadvantaged groups.

## 4.2 Early years

This chapter considers evidence of the association between adult learning and early years' outcomes such as child cognitive ability, and aspirations. It also discusses intergenerational correlation, and considers the outcomes of family learning schemes as drivers of child development. Some ways in which FE and skills could contribute to early years' outcomes were under-researched. These included links between FE and the alleviation of child poverty and deprivation, and also the continued effects after a child reaches the age of 16.

Various studies have been undertaken relating to parental, adult learning and children's development. Both quantitative and qualitative methods have been used, normally through interviews and surveys as well as analysis of data collected in BCS70. Several studies highlight the intergenerational nature of social mobility, meaning that adult learning will have a knock-on effect on children of learners. Much of the research highlights the link between parental learning and child development. For example, Harding et al (2014) conducted a longitudinal study of Community Learning schemes, involving 1,951 participants on completion of a scheme and re-engaging with them 12 months later. Interviews were conducted, which explored learning at home, interaction with children, and confidence in helping children to learn. The study found that a significant proportion of parents felt more comfortable helping their children with reading, writing, and maths at the second study point than the first; 48, 45, and 39 per cent respectively (Harding et al, 2014, see Figure 15).

**Figure 15: Proportions of learners reporting increased, similar or decreased levels of confidence in helping their children with different school subjects**



Source: Harding et al (2014)

Note: Do not know and refused responses excluded

Alongside this, Harding et al (2014) additionally identified that working with children at family learning courses helped learners feel better able to work collaboratively. There were differences in the change observed with the following groups more likely to report a confidence increase:

- women compared to men
- Black and minority ethnic (BME) parents compared to white parents
- those for whom English was not a first language compared to native English speakers
- those from urban, deprived areas compared to those from more prosperous locales
- those receiving some form of state benefit compared to those that did not
- those who had already completed FEML courses compared to those who had not.

FEML refers to courses for parents in maths and English that also explain what their children are learning at school, including curricula and teaching methods, as well as how to replicate these at home. This would indicate that the courses were particularly beneficial to disadvantaged and vulnerable groups, and supported the findings that confidence increases shortly after taking up Community Learning (Harding et al, 2014).

The difference in gender outcomes of adult learning was observed by London Economics and Ipsos MORI (2013a), in a study that analysed the economic impact and wider benefits of adult learning. The research surveyed 4,000 learners on a range of topics, including the role of information, advice and guidance and their expectations in relation to potential outcomes. In relation to supporting children, the study highlighted a desire amongst women to engage in courses to benefit their children: 58 per cent of women completing



education and training said that the course had enabled them to help their children with school work and 47 per cent of male completers reported this (London Economics and Ipsos MORI, 2013a).

For both genders there was strong intergenerational correlation; 0.2 when current parental and child cognitive skill were regressed. This figure was obtained by regressing parental test scores at age 34 with children's skill level derived from test scores undertaken as part of the British Cohort Study at age 5, demonstrating the importance of parents' current ability in affecting their children's cognitive skill. This held true for both genders, demonstrating a tangible benefit to adult learning in child development. There is however a gender gap when literacy and numeracy at differing parents' ages are taken into consideration (de Coulon et al, 2011). Correlation between a parent's ability and their child's abilities at age five is stronger for mothers than fathers (0.12 compared to 0.08), but if a child's ability versus their parent's ability at age 34 is considered the reverse is true, with correlations of 0.18 for fathers and 0.13 for mothers. The authors noted limitations with regards to the sample size, so this finding should only be treated as indicative.

Other evidence contradicted this evidence, with Sabates et al (2011) finding no observable association between maternal adult learning and Key Stage 3 (KS3) test scores of their children having controlled for confounding factors. This study involved analysis of the Avon Longitudinal Study of Parents and Children (ALSPAC), studying the adult education participation of 3,509 mothers and their children's KS3 results, obtained from the National Pupil Database (NPD). Time spent in learning and the mother's prior education were not significant variables on children's KS3 attainment; the only significant correlation was a positive relationship between mothers with no qualifications who were undertaking informal learning and their children's KS3 English results. This difference may be explained by geographical scope; as it was based in Avon, many of the children would have grown up studying in the same local educational authority, indeed some in the same school, meaning schooling would have had an impact. In addition, this study considered effects at KS3, so much later in the child's development than the early years' focus of many other studies. This could suggest that adult learning has the strongest effect on early years, decreasing with age. This hypothesis could be further explored by research into the effects of adult learning on post-16 transition, an area that there appears to be little work into, and no research with quantitative, UK-based data. This highlights a potentially important gap in the literature.

Alongside parental learning, family learning schemes demonstrate a benefit to child literacy development. Swain et al (2014) show the wider benefits of parents learning how to help their children learn, as well as learning themselves. This was achieved through two main channels; learning previously unknown teaching techniques (the use of phonics and the importance of reading to one's children are given as examples), and their own adult learning giving them increased ability to help with their children's schoolwork. It also appears that family learning encourages greater involvement with children's formal education. Of the cohort of 101 learners, 61 interviewees said that since taking a family learning course they had become more involved in their child's pre-school or school. Indirectly, this occurred through greater communication between parents and teachers to develop a mutual understanding, and directly as parents sought opportunities to volunteer as classroom assistants, helpers on school trips, and greater engagement with events

such as parents evenings and sports days. Another study of English and maths learners found that 77 per cent of literacy and 75 per cent of numeracy learners felt better able to support their children's homework, with 98 to 99 per cent of these attributing the course 'a lot' with this change (SQW Ltd. et al, 2013b). Over 40 per cent of learners reported increasing the level of support given to their children, and *'in the home, parents were doing a better and more enthusiastic job of reading with their children'* (SQW Ltd. et al, 2013b, p.44).

A wider benefit of the family learning course found by Swain et al (2014) was that alongside new learning techniques (such as practicing reading or spelling), more general interactions between parents and children were also reported to have improved. One respondent noted that she was improving her child's literacy through practicing reading her shopping lists, indicating that adult learning highlighted novel ways of helping one's child learn in everyday situations. Adult learning then has benefits outside of its formal scope, adding to the richness of the experience for both learners and their children.

*'Learning the words such as phonemes that they use at school. Words sounded really difficult but don't sound so frightening now. Now I understand when the teacher talks about phonemes. I know what they are, rather than a blank look coming over my face'*

*I feel now that I'm working with the school, and when he brings home books I can understand the way they want to teach reading. And his reading has come on lovely. Yes, I think it's really helped. Because I was teaching him, initially, in a totally different way. The way that I thought I'd been taught at school, but they teach so differently now, don't they? With the phonics and everything. But I think I was working more against him really, but now I feel like I'm working with him, and with the school'*

*'I do think we've always been fairly active, trying to encourage them to do their homework. I suppose it was, yes, finding things, learning new ideas, that actually you can get them reading and writing not by literally sitting them down and saying – right, you must do your homework. It's things like my son loves writing my shopping list for me. Things like that, you can actually bring in the learning side of it at home, without him realising that actually I am testing his spelling, or things like that'*

Quotes from Family Literacy learners, Swain et al (2014)

Overall, this evidence indicates that there are varied benefits to adult learning, including an impact on the cognitive development on children. This effect is strongest in the early years, then appears to become less notable as the child ages, an area which could be followed up by a study into Key Stage 4 and later attainment, where there appears to be a gap in the literature currently. Due to this lack of data on post-16 transition there is little data on the contribution of adult learning to learners' children's participation status and work habits. Another under-researched area about the contribution of FE and skills to early years relates to deprivation and poverty. Whilst the studies point to vulnerable groups benefitting the most, further longitudinal data is needed to identify if there is an improvement in the household's financial situation after adult learning has been undertaken.

# 5 The wider benefits of FE and skills

## 5.1 Key findings

- Vocational education and training can have positive effects on productivity, benefit dependency, educational equality and returns to the Exchequer, but may have limited scope in challenging persistent income inequality.
- Basic skills training, work-based learning and Community Learning make positive contributions to learners' perception of and belief in their own skills, including literacy, numeracy, job-related and work-seeking skills. There was limited evidence of gains in proficiency.
- Adult education clearly bolsters confidence and self-esteem. Despite some varied findings concerning self-efficacy<sup>25</sup>, effects here were also generally positive.
- Broadly, positive effects were also found for learners' health and wellbeing, although there were some exceptions when it came to particular measures and differentiation according to Level of learning or learner characteristics.

## 5.2 Wider societal benefits

The wider societal benefits from adult education were discussed in the evidence in relation to two areas of FE: low-level skills and vocational education or training. It was found that learning below Level 2 – and generally reducing the proportion of individuals with such learning requirements – generated substantial returns to the Exchequer and lessened poverty. Furthermore, basic skills training also enhanced employment rates, earnings and productivity. Vocational education was found to have similar positive effects on productivity, on reduced benefit dependency and on returns to the Exchequer which were highest for Level 3 qualifications and generally higher for men. However, vocational education was found to have limited ability in challenging persistent income inequality, instead it provided greater scope to enhance education equality by helping more individuals achieve higher levels of education.

### 5.2.1 Skills, poverty and income inequality

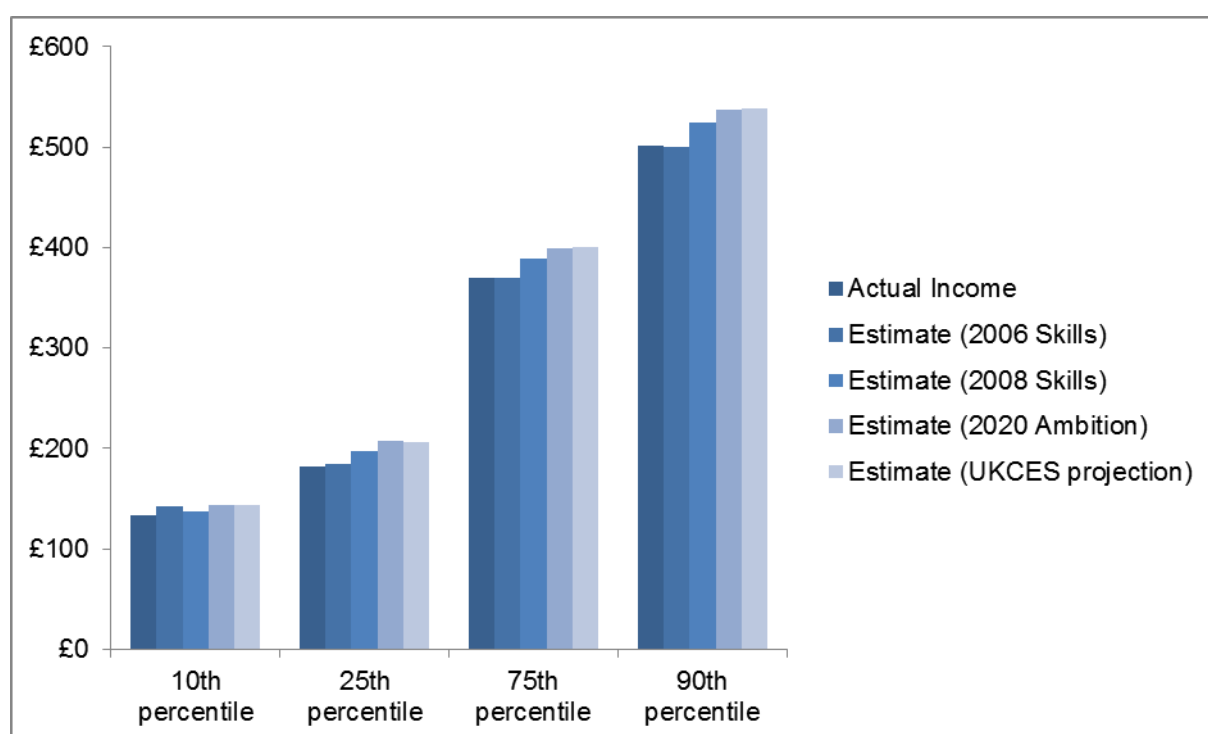
Using analysis of BHPS data from 2000 to 2008, the Taylor et al (2012) investigated the potential effects of the 2020 Leitch Ambition alongside the potential effects of the UKCES' 2020 projection on earnings, employment, poverty and income inequality. The report built two scenarios, the first based on the Leitch ambition which had aims such that by 2020, 40

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<sup>25</sup> Individuals' belief that they will achieve their personal goals or targets

per cent of the population would be qualified at Level 4 or above and 90 per cent would be qualified above Level 2. The second considered UKCES' projection which suggested the Level 4 target would be met, but not the Level 2 target. The consequence of this latter scenario was to produce a lesser effect on poverty rates than envisaged by Leitch due to smaller earnings and employment gains at the lower end of the skills distribution. Both scenarios increased average net household income, particularly at the bottom of the income distribution: relative increases of four to five per cent for the 10<sup>th</sup> and 25<sup>th</sup> percentiles compared to three or four per cent for the 75<sup>th</sup> and 90<sup>th</sup> percentiles (Taylor et al, 2012, see Figure 16).

**Figure 16: Change in weekly equivalised household income according to actual income and skills targets**



Source: Taylor et al (2012), Table 2, p.19

Estimated effect sizes were reported for a range of demographic factors. The fall in relative<sup>26</sup> poverty due to qualifications increases was estimated to be smaller for women due to the larger proportion of women working part-time, although there were some methodological difficulties in modelling distributions with full- and part-time employment. Additionally, the impacts of qualifications change on relative and absolute poverty were estimated to be greater for families with children, including larger effects for low-skilled people who were found to have more children than higher skilled individuals and to have children at a younger age (Taylor et al, 2013).

<sup>26</sup> As measured in terms of living standards in the UK

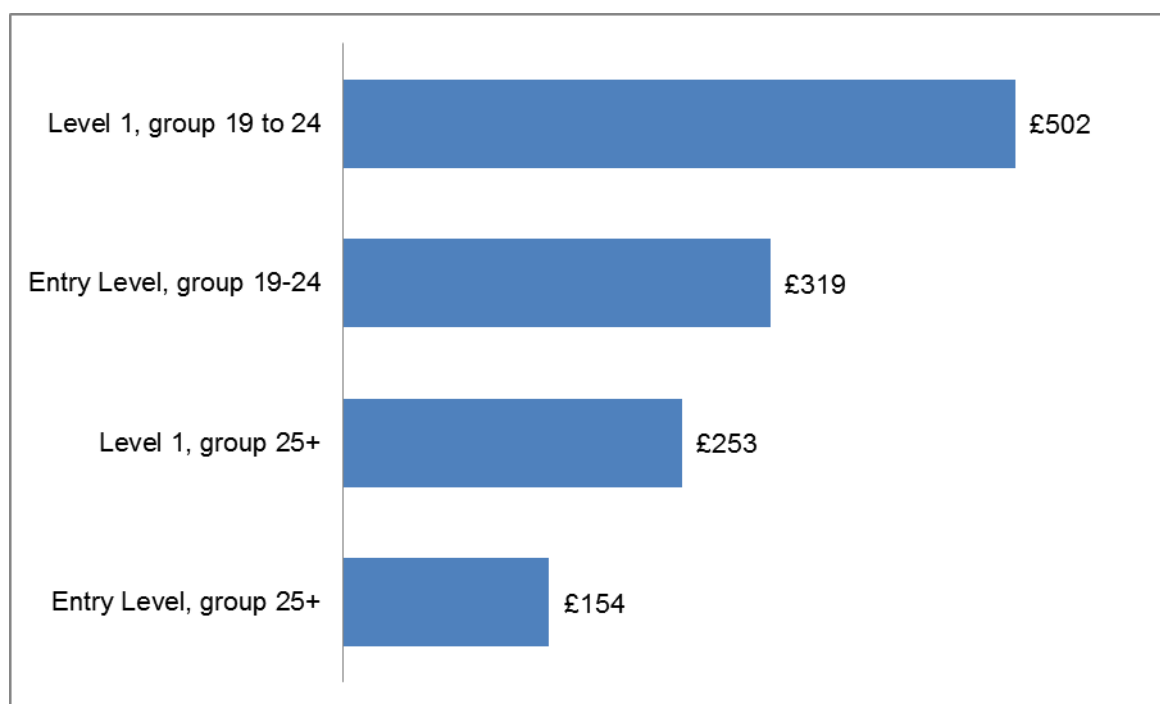
Several assumptions underpin this analysis. First, that there is a causal link between qualifications, employment status and earnings; secondly, that returns to education and skills will not be affected by the supply of skills, and; lastly, that the tax and benefit system of 2020 will be broadly the same as today. Crucially, the authors note that if skills increases result in smaller returns in the future, then the impacts may be overestimated (Taylor et al, 2012). The authors conclude that policies aimed towards productivity and economic competitiveness (through skills) *'could indeed be expected to improve considerably the absolute quality of life of large groups of people where there is clear income deprivation at present'* (Taylor et al, 2013, p.8).

### 5.2.2 Learning below Level 2

Further evidence on wider societal benefits from FE considers learning below Level 2, including adult basic skills. **Estimates of the costs and benefits to the Exchequer** were outlined in two studies informing the Vorhaus et al (2011) review of basic skills evidence, although both studies are now over ten years old. First, it was estimated that there would be £2.54 billion worth of savings if the Skills for Life numeracy target was met and a reduction in government spending of £0.44 billion if the literacy target was met (Bynner et al, 2001, cited in Vorhaus et al, 2011). Secondly, it was estimated that reducing the proportion of the population with below Level 1 literacy and numeracy by 2020 would cost £800 million but would deliver a net benefit of £50 to £70 billion, increase employment rates by 0.15 to 0.25 percentage points and elevate output per worker by 0.47 per cent (Coulombe et al 2004, cited in Vorhaus et al 2011).

A more recent study, Wiseman et al (2013), undertook an econometric analysis of ILR data matched to HMRC data to investigate the impact of up-skilling at the lower end of the skills distribution (below Level 2) and found that learning which began in 2005-06 returned around £638 million to public budgets over four years (2007-08 to 2010-11). Both higher tax returns and out of work benefits savings from this learning returned £124 million in 2005-06, rising to £172 million in 2010-11. Most of these returns were attributed to Level 1 learning, with only 13 per cent credited to Entry Level learning in 2010-11. On an individual level, a similar pattern was found, with Exchequer returns greater per pound invested for Level 1 provision: Entry Level provision returned between £2.70 to £16.70, and Level 1 returned between £5.90 to £21.60 (the lower bounds attributed to learners aged 25 or older, the upper to learners aged between 19 and 24). In addition, Wiseman et al (2013) calculated average 'per learner per year' returns to public budgets, which mirrored the pattern for return per pound invested (see Figure 17). Returns to public budgets from ESOL learning were found to be negligible (Wiseman et al, 2013).

**Figure 17: Per learner per year return to public budgets according to age and level of learning**



Source: Wiseman et al (2013)

### 5.2.3 Vocational learning and training

Several papers presented findings on the wider societal outcomes of vocational education and training (VET), covering social and income equity, labour productivity, benefit dependency and returns to the Exchequer.

One analysis used qualitative case studies alongside estimation of trends over time with a dataset comprised of Freedom in the World 2008 survey data, OECD data on 21 countries from 1960 to 1990 and secondary VET data derived from UNESCO's statistical yearbook. It was found that continuing VET (training occurring throughout life, as opposed to initially before starting a career) may have a limited effect in challenging persistent **income inequality** (measured through Gini coefficients<sup>27</sup>) (CEDEFOP, 2011b).

In a fully-controlled model it was found that continuing VET can be positive for **educational inequality**, as measured through the proportion of the population achieving seven levels of education (CEDEFOP, 2011b). It was not the level of VET participation but its structural arrangements which were thought to be crucial in enhancing education equality. Consequently, the authors recommend addressing the academic versus vocational dichotomy to promote greater equality through mainstreaming and integrating

<sup>27</sup> A representation of a nation's income distribution and so level of income equality



VET, challenging ethnic and gender inequality and aiding labour market transitions<sup>28</sup> (CEDEFOP, 2011b).

The impact of (increasing) vocational skills on average labour **productivity** (ALP) was considered in the context of Denmark, Germany, the Netherlands, France, Sweden and the UK using regression analysis based on two datasets, one macro-level and one sectorial. The first, covering 1980 to 2007, contained information on gross value added, hours worked, capital services and whole-economy level skills, whilst the other covered similar variables for 16 different sectors in each of the six countries. Using a wage-weighted skills measure, a significant relationship was found between vocational skilled labour input and ALP, but not with degree-level skills or lower-intermediate general skills (CEDEFOP, 2014). A one percentage point rise in vocational skilled employment was found to account for a 0.143 percentage point increase in ALP, and although the general picture was primarily driven by Level 4 skills, as it was in some sectors such as production, Level 3 skills had a positive impact on ALP in service sectors (CEDEFOP 2014). However, this positive relationship was more prevalent in apprenticeship-based systems as opposed to school-based ones such as the UK's (CEDEFOP, 2014).

Final evidence about the wider benefits VET comes from two sources and concerns public finances. The first – cited in an evidence review of three econometric studies – analyses ILR and HMRC matched data although there is no non-learner counterfactual, some missing data (accounted for by the authors) and a lack of available control variables. The achievement of all levels of VET **reduced benefit dependency**, especially for ethnic minority learners as compared to white learners (by 3 per cent and 1 per cent reduction respectively) (Cambridge Econometrics and Warwick Institute for Employment Research, 2013).

More recent research by Bibby et al (2014) using matched data has also considered the percentage probability of achievers being on active benefits following engagement with FE. Although the returns initially look small, the authors highlight that since the absolute proportion of claimants is small, the percentage point returns obscure a larger percentage point difference. As such, Full Level 2 learners are 2.1 percentage points less likely to be on benefits, which equates to a 28 per cent difference. Likewise, for Level 2 achievers, the difference is 0.6 of a percentage point, yet 11 per cent difference. Learning at all levels produces a positive and significant impact on reduction of benefit dependency in the three to five years after learning (Bibby et al, 2014).

Another study analysed LFS data from 1996 to 2009, covering learners from the age of 16 to 59 (for women) and 64 (for men). This interrogated the **returns to the Exchequer** from Level 1, 2 and 3 learning by different vocational qualifications. The lower bound assumed that 50 per cent of the benefit is due to the qualification and the upper that all of the benefit is. Highest returns came from Level 3 learning, ranging from £10,000 to £15,000 for NVQs

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<sup>28</sup> There are however, methodological limitations affecting these findings. Data is currently incomplete, curtailing research into VET implications, and there is a range of different and competing definitions of vocational learning and training.



(the only Level at which such returns were positive) to £35,000 to £54,000 for BTECs (Conlon and Patrignani, 2012; see also Table 46 in the Appendix). However, this obscures some stark gendered differences in the rate of return to the Exchequer: rates for men from Level 3 NVQs were between £57,000 and £81,000, whilst returns for women range between just £8,000 and £17,000 (Conlon and Patrignani, 2012 Table 14; see also Table 59 and Table 60 in the Annex). Although data was insufficient to analyse Level 1 BTECs, Exchequer rates of return to Levels 2 and 3 were also found to be substantially higher for men. However, RSA qualifications did provide positive (and the highest) rates of return to the Exchequer for women, ranging from £11,000 to £16,000 for a Level 1 to £12,000 to £22,000 for a Level 3 (no comparable data was available for men due to the small sample size) (Conlon and Patrignani, 2012).

The numbers in black reflect the assumption that 50 per cent of the employment benefit is attributed to the qualification, whilst the higher assumed that 100 per cent of the employment gain results from obtaining the qualification. The figures in red assumes that the earnings premium associates with vocational qualification attainment is non-negative, whilst the numbers presented in green assume that this and enhanced employment probabilities are non-negative.

**Table 14: Exchequer rates of return associated with vocational qualification attainment**

		RSA	City & Guilds Range	BTEC Range	NVQ Range
Level 1	NPV Benefits	-	£5,000 - £6,000 £5,000 - £6,000 £13,000 - £15,000	-	- - - £21,000 - £13,000 - - - £19,000 £11,000 -£3,000 -£3,000
	Rate of return	-	8% - 10% 8% - 10% 78% - 81%	-	-
Level 2	NPV Benefits	-	£17,000 - £24,000 £17,000 - £24,000 £17,000 - £24,000	£18,000 - £28,000	- - - £22,000 - £17,000 - - - £18,000 £12,000 -£4,000 -£3,000
	Rate of return	-	9% - 11% 9% - 11% 9% - 11%	9% - 10%	-
Level 3	NPV Benefits	-	£26,000 - £41,000	£35,000 - £54,000	£10,000 - £15,000
	Rate of return	-	11% - 15%	12% - 15%	14% - 18%

Note: '-' indicates that it was not possible to provide robust estimates of the NPV and IRR due to small sample sizes or the rate of return could not be calculated due to the stream of future earnings being negative for every possible value of the discount rate.

Source: Conlon and Patrignani (2012)

## 5.3 Wider benefits to individuals

Although perhaps appearing more tangential to social mobility, wider individual outcomes are highly important. Social class or status (and the life changes associated with this) are complex issues which are influenced by factors additional to employment and earnings alone. These more divergent aspects may impact learners' cultural capital, and therefore access to social, educational and employment opportunities.

Further Education (FE) in general terms was found to have a broadly positive effect on health and wellbeing, although the effects were differentiated according factors such as Level of study or gender. Strong evidence was found that adult FE in many different forms has a positive effect in enhancing participants' confidence and self-esteem. Furthermore, Community Learning, work-based learning and basic skills training were all found to have a positive effect on learners' attitudes and perspectives towards their literacy, numeracy, job-seeking and job-related skills. This was especially the case for more substantial learning experiences, or for learning from particularly disadvantaged positions.

### 5.3.1 Aggregated adult FE learning

Where the wider individual benefits of Further Education (FE) were studied at aggregate level, they tended relate to **health, wellbeing and psychosocial outcomes**. For example, life satisfaction (measured on a ten-point scale) was the focus of two London Economics and Ipsos MORI reports which used surveys, the latter cohort being out of employment at the beginning of their course (2013a; 2013b). On average, completers reported a higher life satisfaction score than non-completers, and the life satisfaction score of female completers was higher than among male completers (London Economics and Ipsos MORI, 2013a; 2013b).

Regression analysis of learning below Level 4 using BHPS corroborated this finding. Almost all **health and wellbeing** outcomes were positively associated with adult learning (significant at the five per cent level) (Dolan et al, 2012). The same positive relationship has been found elsewhere (Matrix Knowledge Group 2009, cited in Myers et al 2014, p.22). There were exceptions to this finding. Returns at ages 46 and 50 from adult participation in accredited FE between the ages of 42 and 46 were estimated using the National Child Development Study (NCDS). In a fully controlled model, no significant associations were found for health, depression or life satisfaction (Duckworth and Cara, 2012). Providing some context to these findings, differential effects depending on the level of learning were reported in two studies by London Economics and Ipsos MORI. In one, the effect of learning at Level 2 was found to be statistically significant on wellbeing, but no such relationship was observed for learning at Level 3 (London Economics and Ipsos MORI, 2013a). In the other, learners completing Level 1 or 2 qualifications reported lower average wellbeing scores than those with Entry Level or Level 3 qualifications (London Economics and Ipsos MORI, 2013b).

Several studies using a variety of approaches and sources – BHPS analysis of learners matched to a non-treatment group, a survey of Skills for Life learners and one of the above telephone surveys of learners not in employment – found further positive associations between aggregated FE, **self-esteem and confidence** – 81 per cent of learners in the

latter study (Dolan et al, 2012; Metcalf et al, 2009, cited in Myers et al 2014; London Economics and Ipsos MORI, 2013b). Metcalf et al's study found this relationship was significant at the 10 per cent level for Skills for Life learners when compared to non-learners (Metcalf et al, 2009 cited in Myers et al, 2014). Findings on the relationship between adult learning and self-efficacy (ie the strength of an individual's belief in their ability to complete tasks or to reach goals) from two NCDS studies conflicted and no clear picture emerged. One reported a 1.34 times increase in self-efficacy between the ages of 33 and 42, whilst the other found a small, negative effect for men, significant at the five per cent level (Hammond and Feinstein 2004, cited in Myers et al 2014; Duckworth and Cara, 2012). Feinstein and Hammond (2005) also found that participation in adult learning at aggregate level was correlated with six out of nine health and wellbeing measures<sup>29</sup> and six relating to social cohesion.<sup>30</sup> When separated by course type, academic courses were correlated with five and vocational qualifications with just one measure (Feinstein and Hammond 2005, cited in Myers et al 2014).

Both the above BHPS analysis discussed above (Dolan et al, 2012) and London Economics and Ipsos MORI's (2013a) learner survey found **social cohesion** to be positively related to adult FE, including greater civic participation and greater involvement in voluntary and socio-political groups (significant at the one per cent level) (London Economics and Ipsos MORI, 2013a; Dolan et al, 2012). More generally, the BHPS analysis also found learners had higher employment aspirations (Dolan et al 2012). Likewise, a telephone survey of learners not in employment found that nearly 72 per cent of participants reported that they would take on more social or voluntary work (London Economics and Ipsos MORI, 2013b). Furthermore, three-quarters of these learners felt they had a better idea of what to do with their lives and two-thirds that quality of life had improved as a result of their training (London Economics and Ipsos MORI, 2013b). One example of this wide range of individual impacts can be seen in Dolan et al's (2012) analysis in Table 15 below.

**Table 15: The impacts of formal and informal adult learning**

	Self-confidence	Self-worth	Not depressed or unhappy	Satisfaction with health	Frequently does voluntary work	Member of a trade union
<b>Formal learning</b>	0.324***	0.558***	0.276***	0.044**	0.398***	0.313***
<b>Informal learning</b>	0.295***	0.446***	0.276***	NS	NS	0.203***

Source: Dolan et al (2012), Table 2 pp.35-37

Note: \* ( $p < 0.1$ ), \*\* ( $p < 0.05$ ), \*\*\* ( $p < 0.01$ ), NS (not significant)

<sup>29</sup> Smoking, drinking, exercise, life satisfaction and movement in to or out of depression.

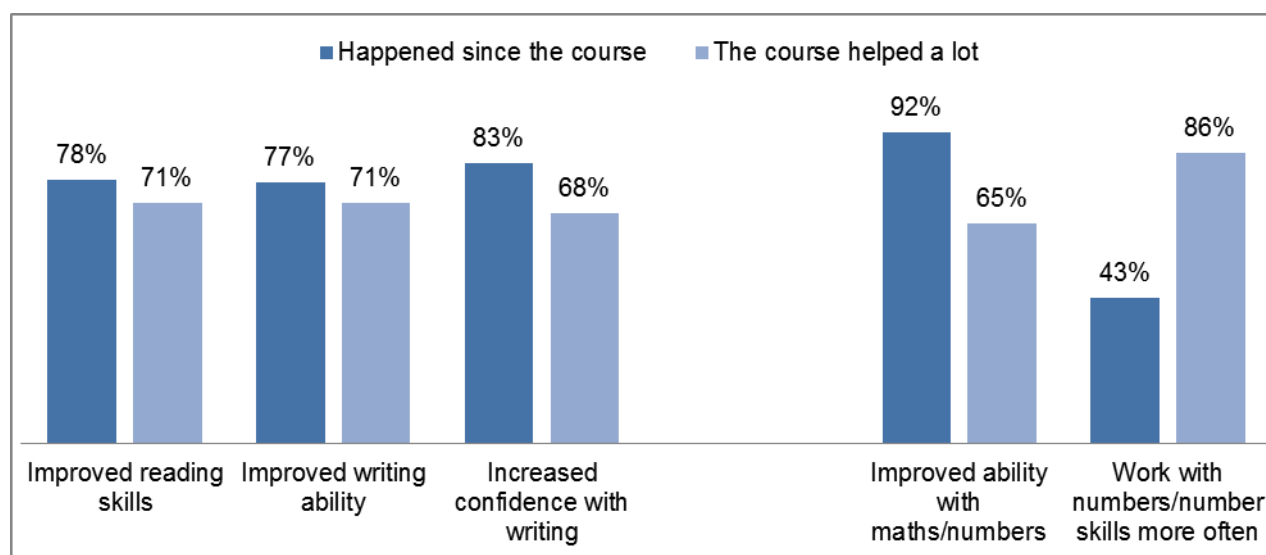
<sup>30</sup> Racism, political cynicism and interest, support for authority, group membership and voting.

### 5.3.2 Basic skills provision

Several studies looked at the wider benefits of basic skills provision and found basic skills learning made a positive contribution to (perceptions of) skills gain, self-confidence, and social cohesion. Objectively measured skills proficiency gains proved to be more modest.

Most studies focused on the skills acquired which included literacy, numeracy, parenting, employability and job-related skills. Two large studies – one quantitative using a longitudinal learner survey with skills assessments, the other using in-depth qualitative research – considered adult literacy and numeracy. Learners reported greater confidence in reading (80 per cent, with 71 per cent attributing this to the course), writing (83 per cent) and numeracy (90 per cent) (SQW Ltd. et al, 2013b). However, during the relatively short follow-up time only small positive returns were found in terms of actual **literacy proficiency gains** (SQW Ltd. et al, 2013b). In this study as in another cited in an evidence review, the effect sizes were larger for learners with English as an additional language – statistically significantly so in the latter research (SQW Ltd. et al, 2013b; Wolf et al 2011, cited in Vorhaus et al, 2011). Level 1 and 2 literacy learners reported larger positive changes in **reading attitudes** than Entry Level learners – after controlling for learner characteristics – and literacy students demonstrated small, positive and statistically significant changes in general attitudes to learning (SQW, 2013b). Learner perspectives of their own **skills gains** were functional in both the large qualitative study above and in another using Family Literacy focus groups and interviews. They spoke of greater fluency in reading, writing, grammar and punctuation, and confidence with splitting bills, writing postcards, and household budgeting (SQW Ltd. et al, 2013a see Figure 18; Swain et al, 2014).

**Figure 18: Self-reported changes in skills as result of engaging in English or maths provision**



Note: Percentage of those reporting the course helped a lot out of those who experienced it.

Source: SQW Ltd et al (2013b), Table 25 p.39

**Wider psychosocial** benefits of adult basic skills provision included participants' own sense of their ability to learn, help others and be familiar or competent in a learning environment, as well as **self-confidence, self-worth, self-image, a sense of personal achievement**, positive attitudes towards life, reduced stigma and the ability to self-advocate, speak out or take on new challenges (SQW et al, 2013a; Vorhaus et al 2011; Swain et al, 2014).

Such learning was also found to be positively related to **social cohesion** by facilitating new social networks, greater civic participation and combatting social isolation (Vorhaus et al, 2011; SQW Ltd. et al, 2013a). In-depth qualitative research with adult literacy and numeracy learners noted this was relevant as '*significant number of [such] learners come from social groups that tend to be solitary and cut off from areas of wider society, the unemployed, single parents and those with mental or emotional disabilities*' (SQW Ltd. et al, 2013a, p.34). Both waves of the quantitative part of this research found statistically significant increases in life satisfaction, control and (most of all) mental wellbeing and self-esteem (SQW Ltd, 2013b).

### 5.3.3 Work-based and work-related training

Employability and job-related training was found to increase 'soft' skills and a variety of work-based and **job-seeking competencies and attitudes**, such as greater job aspirations, confidence in job-searching and in obtaining work, better teamwork, more appropriate behaviour, more responsibility at work, better timekeeping and better stocktaking (Vorhaus et al, 2011). Fifty per cent of respondents to a survey of learners from the Work-Focused Training Strand of the DWP's 6MO reported **improvement in at least one skills area** (Adams et al, 2011a). Furthermore, longer courses (10 weeks or more) were more strongly associated with **skills upgrading** than shorter courses lasting less than one week. Skills included those that were work-related as well as communication, personal and social skills with 17 per cent reported they had greatly improved and 34 per cent to some degree – although there is an absence of a counterfactual (Adams et al, 2011a). A follow-up survey with learners indicated they felt positive about new employability skills, although causality cannot fully be attributed (McCrone et al, 2013). A similar finding emerged from a review about Train to Gain<sup>31</sup> which also used learner self-reported skills gains. Over three-quarters of learners reported increased work-related skills both for the future, and for their current employment (NAO 2009, cited in Vorhaus et al, 2011; Ofsted 2008, cited in Vorhaus et al, 2011).

Several studies found that **psychosocial and wellbeing** outcomes were related to work-related training, with longitudinal qualitative research and two surveys evaluating DWP initiatives<sup>32</sup> all reporting a growth in learner confidence (Ofsted, 2012; Adams et al, 2011a; Hendra et al, 2011). However, the qualitative work was small-scale, and both this and one of the other sources do not contain a comparison group.

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<sup>31</sup> This government-funded initiative provided work-based training to low skilled employees

<sup>32</sup> 'Employment Retention and Advancement' and 'Six Month Offer'.

Analysis of NCDS responses of cohort members aged between 42 and 50 found work-related training to be positively associated with changes in self-efficacy (significant for women at the 10 per cent level) and life satisfaction (significant at the 10 per cent level) (Duckworth and Cara, 2012). From the Workplace Employment Relations Study (WERS), it was found not only that substantial training in the last 12 months was positive and significantly related to all six job satisfaction measures, but that engaging in insubstantial training (less than one day) provided lower averaged satisfaction scores than no training at all (Jones et al 2004, cited in Myers et al, 2013).

#### 5.3.4 Community Learning

Evidence about the individual benefits of Community Learning within the scope of this review relate to **skills acquisition** and come from longitudinal interviews and qualitative workshops, although as these rely upon self-reported data and do not involve a comparison groups there are some limitations on the conclusions that might be drawn (Harding et al, 2014b; Harding and Gezelayagh, 2014b). FEML learners reported improved numeracy (67 per cent), literacy (74 per cent) and communication (79 per cent) and learners with English as an additional language most frequently reported improved language skills (Harding and Gezelayagh, 2014b). Additionally, learners living in the three most deprived indices of deprivation deciles reported the highest development in skills (Harding and Gezelayagh, 2014b). For community learners more broadly, although self-reported general confidence had grown since the first wave, confidence in budgeting, numeracy or job seeking skills remained static (Harding et al, 2014a).

Alongside consideration of literacy, numeracy and employability it was also reported that FEML and Wider Family Learning (WFL) learners had widened their social networks, and showed greater community involvement, broadening learners' horizons and combatting **social isolation** (Harding and Gezelayagh, 2014b; Harding et al, 2014a). Office of National Statistics (ONS) measures were also used in calculating **learner wellbeing**. At both time points, life satisfaction and feelings of being happy the day before were higher compared to UK average scores, and stay-at-home parents, carers and unemployed people particularly reported enhanced wellbeing and mental stimulation (Harding et al, 2014a). Participant observation with learners particularly impacted by the course was used to highlight their experience: *'I don't get down any more like I used to, those things that used to be significant aren't any more I am working much more now than I was then. I feel so much better'* (learner cited in Harding et al 2014a, p.33).

However, analysis of both the English Longitudinal Study of Ageing (ELSA, cohort aged over 50) and NCDS (cohort members aged between 42 and 50) only found statistically significant relationships between Community Learning and wellbeing when it came to female learners (Jenkins, 2011; Duckworth and Cara, 2012). Jenkins (2011) found changes in quality of life significant at the one per cent level and changes in wellbeing significant at the five per cent level, whilst NCDS analysis found significant changes in life satisfaction (at the ten per cent level), self-efficacy (at the one per cent level) and depression (at the five per cent level) (Jenkins, 2011; Duckworth and Cara, 2012).



## 6 Conclusions

Patterns of participation in FE and skills are affected by Government priorities and funding arrangements. Between 2004/5 and 2012/13 it is notable that the number of learners in Adult and Community Learning, and the number of learners in Employer Responsive learning has increased. Over this time policy has moved to a more demand-led system and sought to increase employer-ownership and co-investment in training.

Over the last ten years, the proportion of learners participating in FE and skills has increased in the most deprived areas (as measured by the Index of Multiple Deprivation (IMD)). The proportion of adults participating in FE learning is highest in the most deprived quintile. In 2012/13, 19 per cent of adults in the most deprived areas participated in learning, compared to 8 per cent of adults in the least deprived areas. The proportion of learners in the bottom two-fifths of areas in the IMD increased between 2004/05 and 2012/13, while the proportion in the remaining (less deprived areas) decreased.

Since 2004/05 there has been an overall increase in the proportion of learners studying at Levels 2 and 3, and a decrease in the proportion studying at Level 1 and Entry Level, which in part is likely to reflect Government priorities and a desire for adults to be qualified to Level 2 at a minimum. However, learners in the most deprived areas are less likely than those in more affluent areas to study at Level 3, even when prior qualification levels are accounted for.

Researchers have focused on the direct contribution of FE and skills to learning and employment outcomes such as learning progression, entry to work, and earnings effects, which are some of the indicators used by the Government to measure progress relating to social mobility. The evidence suggests that FE and skills have a positive effect on the indicators noted above when qualification achievement is compared to either the position of non-completers or the relative position of individuals with lower level qualifications. Adult learning makes a positive contribution to greater social mobility and other outcomes such as returns to the Exchequer and levels of poverty.

The evidence base exploring the indirect effects of FE and skills on social mobility, via impacts on learners' children is more limited than that describing direct earnings and employment effects. Some studies have indicated that family learning makes a contribution to early child development as learners feel better able to engage with and support their children with school work, such as supporting their understanding of phonics.

The scale of the effects of skills on social mobility is qualified by contextual factors that relate to the labour market, to the individual and to their learning:

- **Labour market factors** such as the occupational structure, opportunities for progression within sectors, and the distribution of pay affect the degree of opportunity for individuals have for work and earnings progression.



- **Personal characteristics** such as age and gender affect the degree of earnings returns as they influence the length of an individual's working life and therefore the timescale over which they have to generate returns to learning. Gender pay discrimination and childcare responsibilities, which predominately affect women, can both affect the level of pay and the number of hours individuals work.
- The chosen **learning level and qualification type** also affects the returns. Within Entry Level to Level 3 qualifications, qualifications towards the upper end, such as those at Level 2 are more likely to lead to further progression and to greater returns. Different FE qualifications are valued differently by the labour market and therefore have different effects on social mobility. Qualifications demanded by and valued by employers, and those that are vocationally-orientated are more likely to result in a labour market return and are therefore most likely to enhance social mobility.

Therefore it is likely that there is considerable heterogeneity between individual experiences of undertaking learning and its contribution to their individual position in relation to advantage or disadvantage in the labour market.

Mapping the research evidence against the Government's social mobility indicators it can be seen that FE and skills has had a positive effect on seven of the indicators, six directly and one indirectly (see Figure 1, p.17 of this paper). There was no evidence of FE and skills having a negative effect on any of the social mobility indicators.

There remain some gaps in knowledge and evidence about the potential impact and contribution of FE and skills to social mobility. These primarily relate to the effects of adult participation in skills on the early years and post-16 transition of their children. A small number of papers reviewed consider the effects of adult learning on the life chances of children of learners by using self-reported measures of the influence on early years' development and children's early cognitive skills. There seems to be a gap looking at the impact of acquisition of qualifications through FE by parents on the likelihood of the household being affected by income poverty and those households with children experiencing child poverty. Evidence exploring the effects of earnings has focused on the returns for individuals rather than households.

Whilst some evidence investigates the impact of parental adult learning on early cognitive skills and children's educational attainment up to Key Stage 3, research was not found that investigated specifically the impact of parental adult learning on children's performance at Key Stage 4 or on their likelihood of entering different destinations post-16 (NEET status, employment or further education).

## 6.1 The contribution of English and maths to social mobility

In light of the current emphasis on and importance of English and maths skills, it is salient to draw together the findings from this particular body of evidence. The studies reviewed did not consistently investigate all benefits for each type of provision, so there may be additional benefits beyond those discussed in the literature presented. Nevertheless, positive impacts have been identified in the domains considered throughout this review.

Setting returns to basic skills in the UK within a wider context, it has been noted that rates of **entry into work** are higher than those from comparable countries (Crawford et al, 2011). Whilst historic research concluded literacy and numeracy provision was not related to fast-paced employment transitions, more recent research has by contrast found the effects associated with Skills for Life qualifications continue for many years when compared to the outcomes of non-completers (Metcalf et al 2009, cited in Vorhaus et al 2011; Conlon and Patrignani, 2013). However, progression into work is nuanced. Provision with a mathematical emphasis (GCSE maths, Certificate in Numeracy, Key Skills Numeracy) resulted in a 3.7 per cent greater employment premium in the year following completion compared to non-numeric qualifications (Conlon and Patrignani, 2013). In addition, positive sustained employment destinations for English and maths learners and Skills for Life completers are higher for higher-level learning (BIS 2014b; Patrignani and Conlon, 2011, cited in Vorhaus et al 2011). For each level, these returns are several percentage points higher than ESOL provision, yet several percentage points lower than 'other' provision (BIS, 2014b). Previous educational attainment also plays a part, with Skills for Life completers qualified at Level 1 receiving a notably higher employment premium (1.4 per cent) compared those already qualified at Level 2 (0.3 per cent) (BIS, 2010<sup>33</sup>, cited in Vorhaus et al, 2011).

The importance of numeracy skills – rather than qualifications – was also investigated in the context of **in-work progression**. BCS70<sup>34</sup> analysis demonstrates that men with poor numeracy were much less likely to have been promoted at any time (38 per cent, compared to 58 per cent with good numeracy), whilst one-third of women with poor numeracy and over half of those with good numeracy skills had been promoted (Bynner and Parsons, 2006 cited in Vorhaus et al 2011). Aside from this study, there were no other studies explicitly linking English or maths to in-work progression.

Turning to **earnings returns**, Vorhaus et al's (2011) review of literature found that gaining these skills in adulthood had a positive effect on earnings, but concluded there was a lack of evidence on how far formal provision had contributed (Vorhaus et al, 2011). Looking at English and maths qualifications in more detail, Conlon and Patrignani (2013) found that Level 2 Key Skills Numeracy completers had a 15 per cent earnings premium within two years, rising to around 33 per cent by the sixth and seventh years (Conlon and Patrignani, 2013). Level 2 Numeracy and Literacy Certificates were associated with positive or no earnings returns between 0 and 12 per cent in the first six years post-completion (Conlon and Patrignani, 2013). A recent update on this theme found that the three to five year average wage premium for those achieving a Level 1 or 2 English or maths qualification, relative to non-achievement, was 2.4 per cent (Bibby et al, 2014). Furthermore, the strongest returns to daily earnings came from combined literacy or numeracy Key Skills qualifications or certificates, as opposed to each subject by itself, by several percentage points (Bibby et al 2014).

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<sup>33</sup> Referenced wrongly in the body of the Vorhaus report, correct date used here.

<sup>34</sup> The 1970 British Cohort Study

When looking at **progression in learning** of English and maths learners, the picture is somewhat the reverse of entry into work. Thirty-one per cent of learners achieving an Entry Level/Level 1 qualification had a sustained learning rate, lower than ESOL provision (37 per cent) yet higher than 'other' provision (27 per cent) (BIS, 2014b). For Level 2 the picture is less marked, where the sustained learning rates of Level 2 English and maths learners (24 per cent) is only marginally higher than that of Level 2 learners in other provision (23 per cent) (BIS, 2014b). This analysis does not allow us to ascertain whether further learning was at a higher level, although educational pathways that many learners will take into work is evidenced by the higher proportions of learners achieving Full Level 2 and Full Level 3 qualifications who subsequently entered sustained employment.

High proportions of literacy (77 per cent) and numeracy (75 per cent) learners felt more able to **support their children's** homework than they had prior to learning, with 98 to 99 per cent of these attributing the course 'a lot' with such a change (SQW Ltd. et al, 2013b). Over 40 per cent of these learners reported increasing the level of support they offered, with the study finding that in the home, parents were more enthusiastically engaged in activities such as reading with their children (SQW Ltd. et al, 2013b).

Evidence concerning **wider societal benefits** was dated, and as such should be treated with caution. With this in mind, it was estimated that meeting the Skills for Life numeracy target would save £2.54 billion, and government spending would be reduced by £0.44 if the literacy target was met (Bynner et al 2011, cited in Vorhaus et al, 2011). Secondly, reducing the proportion of the population with below Level 1 literacy and numeracy by 2020 would cost £800 million but, it was estimated, would deliver a net benefit of £50–to–70 billion, increase employment rates by 0.15 to 0.25 percentage points and elevate output per worker by 0.47 per cent (Coulombe et al 2004, cited in Vorhaus et al 2011).

Lastly considering **wider individual benefits**, learners gained confidence in their literacy and numeracy skills – particularly from higher levels of learning – drawing upon them through daily activities such as shopping or splitting bills (SQW Ltd et al 2013a; 2013b). Only small positive returns were found in terms of actual literacy proficiency gains, with multiple studies finding the effect sizes to be larger for learners with English as an additional language (SQW Ltd. et al, 2013b; Wolf et al 2011, cited in Vorhaus et al, 2011). English and maths provision (including Skills for Life) has been further found to be associated with a wide range of individual benefits which may impact learners' cultural capital, and therefore access to social, educational and employment opportunities. These include: self-worth, self-image, a sense of personal achievement, enhanced life satisfaction, increased ability to learn, help others or be familiar with learning environments and (most of all) mental wellbeing, confidence and self-esteem (SQW Ltd et al 2013a; 2013b; Vorhaus et al 2011; Metcalfe et al 2009, cited in Myers et al 2014).

## 6.2 Implications

Findings discussed in this report emphasise the wide-ranging and nuanced benefits that engaging in FE brings to individuals. The ways in which adults engaging in FE can benefit highlights its intersection with social mobility, although the scale of effect is qualified by contextual factors related to the labour market, the individual and their learning. Nonetheless, there remain some gaps in knowledge and evidence about the potential

contribution of FE and skills, and what could be done to further enhance its positive effect. The findings of this review indicate areas for further research include:

- The gap in evidence in respect of the **effects of adult participant in FE and skills on learners' children**, in particular on early years, later attainment and post-16 transition. Whilst the evidence indicates adult learning may impact on the cognitive development of children, there is little data on the ways in which adult FE may continue to have an effect on learners' children's participation status and work habits at an older age.
- Likewise, it is unclear **how FE and skills may improve deprivation or poverty at the household level** and over time. Further longitudinal analysis is needed to identify if there is an improvement in a household's financial situation after adult learning has been undertaken.
- The aims for this evidence review were focused on scoping the impact of FE and skills on social mobility. This led to the prioritisation of quantitative studies assessing impact, rather than qualitative studies exploring reasons. Due to this, there are limitations in terms of what can be said about the causes of the trends that emerge. Therefore, **an investigation of reasons for the observed patterns** present in the literature and possibly leveraging novel quantitative analysis would provide both a richer and fuller understanding of the ways in which the impacts of FE manifest. This could include exploring the reasons why Level 3 learning is less likely to be pursued in less affluent areas, particularly as prior attainment does not appear to be a driving factor. The extent to which learners in deprived areas receive advice and guidance on their next steps in learning, and the nature of this if received, may be worth pursuing.
- As above, the scope of this study constrained what can be said about measures to enhance the impact of FE. **A focus on how adult learning can be made a more powerful lever to increase social mobility**, with particular attention on improving outcomes, as well as what can be done to engage and support the most disadvantaged, will help to ensure they have full access to second chances. This would also facilitate a better understanding of the barriers to achievement that learners have faced, and what can be done to break these down.
- In addition, the evidence reviewed to date does not provide an assessment of the impact of progression in FE learning on social mobility. A study exploiting **administrative datasets** that tracks learners' progression through different types of provision and captures the outcomes associated with this could be considered. This would (potentially) enable any additive effect of progressive achievement in FE learning to emerge and could allow individual and household impacts on this basis to be examined. The new legislation to allow more extensive data linkage may enable such a study.
- **Further research considering labour market interaction, low skills and the contribution of FE** would also be of value. An initial review of evidence on this theme

should be guided by terms of reference that focus on these specific themes in order to capture current assessments of the interaction and effects of these factors.

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# Annex

**Table 16: Summary of REA sources**

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
Adams et al	2011	Britain	Entry Level to Level 3 in IT, forklift truck driving, health and safety, literacy, numeracy and employability	18+	Quantitative analysis of a longitudinal survey with two waves	Study evaluates the degree to which DWP's Six Month Option led to additional employment outcomes	<a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214550/rrep769.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214550/rrep769.pdf</a>
Adams et al	2011	Britain	Entry Level to Level 3 in IT, forklift truck driving, health and safety, literacy, numeracy and employability	18+	Quantitative analysis of a cross-sectional survey	Study evaluates the degree to which DWP's Six Month Option led to additional employment outcomes	<a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214550/rrep769.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214550/rrep769.pdf</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
Bibby et al	2014	England	Below Level 2, Level 2, 3 and 4	19+	Quantitative analysis of ILR matched to the Work and Pensions Longitudinal Study (2004/05 to 2010/11)	Estimation of the earnings returns, employment probability and probability of being on active benefits for those who achieve their highest learning aim whilst studying at an English FE institution relative to non achievers.	<a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383646/Estimation_of_the_labour_market_returns_to_qualifications_gained_in_English_Further_Education_-_Final_-_November_2014.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/383646/Estimation_of_the_labour_market_returns_to_qualifications_gained_in_English_Further_Education_-_Final_-_November_2014.pdf</a>
BIS	2014	England	Levels 1, 2, 3 and 4	19+	Quantitative analysis of matched ILR, HMRC, HESA, NPD, PLR, BIS, PAYE and DfE data (2010-11).	Outcome-based success measures of FE: learner destinations, progression in learning and earnings after completion of training.	<a href="https://www.gov.uk/government/publications/adult-further-education-outcome-based-success-measures-experimental-data-2010-to-2011">https://www.gov.uk/government/publications/adult-further-education-outcome-based-success-measures-experimental-data-2010-to-2011</a>
BIS	2013	England	Lever 2 and 3 Apprenticeships	16+	Quantitative research summarising a longitudinal boost for a survey. 4,519 apprenticeship completers were sampled from the 2011 Apprenticeship Survey and the 2009	Study looks at the degree to which apprenticeships are meeting the needs of learners over time with regards to employment, pay and further learning.	<a href="https://www.gov.uk/government/publications/apprenticeship-survey-learners">https://www.gov.uk/government/publications/apprenticeship-survey-learners</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
					Learner Destinations Survey.		
BIS	2014	England	Full Level 2 and 3 qualifications	Results not disaggregated by age 16+	Econometric analysis of ILR matched to DWP and HMRC P45 and P14 tax returns	Study analyses annual average earnings of FE learners who have found sustained employment	<a href="https://www.gov.uk/government/publications/further-education-learners-average-earnings-initial-outputs-of-emerging-results-from-earnings-analysis-of-matched-data">https://www.gov.uk/government/publications/further-education-learners-average-earnings-initial-outputs-of-emerging-results-from-earnings-analysis-of-matched-data</a>
Blanden et al	2011	UK	Various NQF equivalents	16+ with disaggregated findings for older learners	Quantitative analysis of BHPS (1991-2006)	Study assesses earnings returns of lifelong learning	<a href="http://eprints.surrey.ac.uk/430843/3/BLANDEN_measuring_earnings.pdf">http://eprints.surrey.ac.uk/430843/3/BLANDEN_measuring_earnings.pdf</a>
Buscha and Urwin	2013	England	Below Level 2 to Level 4 and over	16+	Quantitative analysis of ILR matched with DWP and HMRC data on benefit and PAYE employment histories	Study estimates the earnings, employment and benefit premiums of those who secure their highest learning aim against a counterfactual who do not achieve.	<a href="https://www.gov.uk/government/publications/estimating-the-labour-market-returns-from-qualifications-gained-in-english-further-education-using-the-individualised-learner-record-ilsr">https://www.gov.uk/government/publications/estimating-the-labour-market-returns-from-qualifications-gained-in-english-further-education-using-the-individualised-learner-record-ilsr</a>
Cambridge Econometrics and the Institute for Employment Research	2013	England	Vocational qualifications Level 1 to 4	16+	Literature review of three studies, two which looked at matched ILR and HMRC data, and another the used regressions of the	Study aimed to update the evidence base on economic returns to vocational qualifications	<a href="https://www.gov.uk/government/publications/review-of-the-economic-benefits-of-training-and-qualifications-research-based-on-cross-sectional-and-administrative-data">https://www.gov.uk/government/publications/review-of-the-economic-benefits-of-training-and-qualifications-research-based-on-cross-sectional-and-administrative-data</a>



Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
					LFS and BCS70		
CEDEFOP	2011	EU (including UK)	Levels 1, 2, 3 and above	22-55	Quantitative analysis of four EU datasets: EU-LFS, EU-SILC, ECHP and ISSP.	Study investigates the wage and employment premiums of continuing vocational education	<a href="http://www.cedefop.europa.eu/en/publications/18070.aspx">http://www.cedefop.europa.eu/en/publications/18070.aspx</a>
CEDEFOP	2011	EU (including England)	Unclear, looks at vocational education from schooling to higher levels	Unclear, uses Gini coefficients for 15+	Time-series estimation to look at human capital effects and case studies to look at institutional arrangements	Study assesses the contribution of VET to social cohesions and the benefits to society as a whole.	<a href="http://www.cedefop.europa.eu/EN/Files/5513_en.pdf">http://www.cedefop.europa.eu/EN/Files/5513_en.pdf</a>
CEDEFOP	2014	Six EU states including the UK	BTEC, NVQ, City and Guilds, RSA, apprenticeships and GNVQ qualifications at Levels 2 and 3	16+	Regression analysis of two datasets, one macro-level with data on GVA, hours worked, capital services and skills levels (1980-2007) and one sector level dataset with similar variables (1980-2007)	Study evaluates the labour productivity benefits of VET across each country, UK chosen for its school-based VET as opposed to apprenticeship-based	<a href="http://www.cedefop.europa.eu/EN/Files/5540_en.pdf">http://www.cedefop.europa.eu/EN/Files/5540_en.pdf</a>
Conlon and Patrignani	2013	England	BTEC, City and Guilds, NVQs, Apprenticeshi	19+	Econometric analysis of ILR (2002-06) matched with HMRC data on	Study investigates the long term effect of vocational education and training on labour	<a href="https://www.gov.uk/government/publications/disaggregated-analysis-of-the-long-run-impact-of-">https://www.gov.uk/government/publications/disaggregated-analysis-of-the-long-run-impact-of-</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
			ps and Skills for Life qualifications at Levels 1 to 4		employment, pay and tax (2003-10)	market outcomes.	<a href="#">vocational-qualifications</a>
Conlon and Patrignani	2010	UK	Levels 1, 2 and 3	16-64 for men, 16-59 for women	Quantitative analysis of LFS (1996-2009)	Study assesses marginal employment and earnings returns to intermediate and lower level qualifications as well as costs and benefits to the Exchequer	<a href="https://www.edexcel.com/Policies/Documents/Final%20Report%20Returns%20to%20BTEC%20Vocational%20Qualifications%20Fin%E2%80%A6.pdf">https://www.edexcel.com/Policies/Documents/Final%20Report%20Returns%20to%20BTEC%20Vocational%20Qualifications%20Fin%E2%80%A6.pdf</a>
Crawford et al	2011	England	FE including apprenticeships	Adults but some young people	Literature methodology without specified methodology	Review summarises key messages for the social mobility literature in relation to BIS policy	<a href="https://www.gov.uk/government/publications/social-mobility-a-literature-review">https://www.gov.uk/government/publications/social-mobility-a-literature-review</a>
de Coulon et al	2011	UK	Basic literacy and numeracy	Adults aged 34 and their children aged 3-6	Econometric analysis of 1359 individuals from the 2004 BCS70.	Study looks at the relationship between skills in adulthood and their children's cognitive and non-cognitive skills	<a href="http://www.tandfonline.com/doi/abs/10.1080/09645292.2010.511829">http://www.tandfonline.com/doi/abs/10.1080/09645292.2010.511829</a>
Dolan et al	2012	England	Below Level 4	18+	Literature review and regression analysis of BHPS where treated and non-treated groups	Study developed the knowledge base of the wider impacts of adult learning such as health and wellbeing	<a href="https://www.gov.uk/government/publications/review-and-update-of-research-into-the-wider-benefits-of-adult-learning">https://www.gov.uk/government/publications/review-and-update-of-research-into-the-wider-benefits-of-adult-learning</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
					were matched	and civic participation	
Dorsett et al	2010	UK	Levels 1, 2, 3 and 4	Men 25-60	Econometric analysis of BHPS (1991-2007)	Study looks at employment and earnings returns to men from lifelong learning, including a comparison between upgrading and not upgrading skills levels	<a href="http://www.llakes.org/wp-content/uploads/2010/08/DorsettLuiWealeComplete.pdf">http://www.llakes.org/wp-content/uploads/2010/08/DorsettLuiWealeComplete.pdf</a>
Dorsett et al	2011	UK	Levels 1, 2, 3 and 4	Women 25-55	Econometric analysis of BHPS (1991-2007)	Study looks at employment and earnings returns to women from lifelong learning, including a comparison between upgrading and not upgrading skills levels	<a href="http://www.llakes.org/wp-content/uploads/2011/10/30.-Dorsett-Lui-Weale-final.pdf">http://www.llakes.org/wp-content/uploads/2011/10/30.-Dorsett-Lui-Weale-final.pdf</a>
Duckworth and Cara	2012	England	Adult learning (accredited, leisure or interest related and work-based)	42-50	Quantitative analysis of NCDS data (2004, 2008).	Health and wellbeing outcomes including life satisfaction, mental health and physical health.	<a href="https://www.gov.uk/government/publications/the-relationship-between-adult-learning-and-wellbeing-evidence-from-the-1958-national-child-development-study">https://www.gov.uk/government/publications/the-relationship-between-adult-learning-and-wellbeing-evidence-from-the-1958-national-child-development-study</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
Evans	2014	England	Levels 2, 3 and 4	19+ participating in FE. Apprentices aged 16+	Quantitative analysis of LFS, ILR and OLASS data (2008-09 to the first quarter of 2013-14).	Summarises FE participation, outcomes and highest qualifications, as well as comparing this across years.	<a href="https://www.gov.uk/government/statistics/learner-participation-outcomes-and-level-of-highest-qualification-held">https://www.gov.uk/government/statistics/learner-participation-outcomes-and-level-of-highest-qualification-held</a>
Marcenaro-Gutierrez et al	2014	Britain	N/A networking as facilitator of social mobility	42	Quantitative analysis BCS70.	Study looks at importance of networking as a facilitator of social mobility and whether this impacts on economic success	<a href="http://ftp.iza.org/dp8380.pdf">http://ftp.iza.org/dp8380.pdf</a>
Harding and Ghezelayagh	2014	England	Family English Maths and Language (FEML) and Wider Family Learning (WFL)	All of FEML learners and 99 per cent of WFL learners 20+	Quantitative analysis of a telephone survey with 4,015 learners who had completed a course between 2011-12	Study aimed to investigate the benefits of FEML and WFL for disadvantaged families	<a href="https://www.gov.uk/government/publications/community-learning-learner-survey-family-learning-courses--2">https://www.gov.uk/government/publications/community-learning-learner-survey-family-learning-courses--2</a>
Harding et al	2014	England	Community Learning	20+	Quantitative and qualitative analysis using longitudinal interviews with learners (2011-12).	Impacts of learning at the levels of individuals, children and communities	<a href="https://www.gov.uk/government/publications/community-learning-learner-survey-after-2-years">https://www.gov.uk/government/publications/community-learning-learner-survey-after-2-years</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
Hendra et al	2011	England	Varied and unspecified	Mostly parents aged 30+	Quantitative analysis of a longitudinal survey for a randomised control trial of three groups: lone parents entering the New Deal for Lone Parents, lone parents working between 16 and 29 hours a week and long term unemployed people entering New Deal 25+	Study evaluates the Employment Retention and Advancement demonstration programme designed to provide training and development among low wage workers	<a href="https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214501/rrep727.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214501/rrep727.pdf</a>
Jenkins	2011	England	Formal and informal adult learning	50+	Quantitative analysis of three waves of the English Longitudinal Study of Ageing (ELSA) (2002-07)	Study investigates the effect of informal and formal learning on health and wellbeing of older adults.	<a href="http://dx.doi.org/10.1080/02601370.2011.570876">http://dx.doi.org/10.1080/02601370.2011.570876</a>
Joslin and Smith	2014	England	Level 3 (progressing to level 4)	17+	Quantitative analysis of matched ILR and HESA data (2005-06 to 2011-12).	Progression rates of level 3 apprentices into HE.	<a href="https://www.gov.uk/government/publications/apprenticeships-progression-to-higher-education-2014-update">https://www.gov.uk/government/publications/apprenticeships-progression-to-higher-education-2014-update</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
London Economics and Ipsos Mori	2013	England	Entry level and Levels 1, 2, 3 and 4 (only 1 per cent of sample studying at level 4)	Unemployed, 19+	Quantitative analysis of a telephone survey of 1,955 unemployed learners, adjusted response rate of 52 per cent.	Study assesses economic and employment outcomes of FE participation, as well as individual outcomes including health and wellbeing.	<a href="https://www.gov.uk/government/publications/learning-for-those-not-in-employment-economic-and-social-benefits-from-further-education-and-skills">https://www.gov.uk/government/publications/learning-for-those-not-in-employment-economic-and-social-benefits-from-further-education-and-skills</a>
London Economics and Ipsos MORI	2013	England	Entry Level to Level 4	19+	Quantitative analysis of a survey of 4,000 taken from the ILR, demonstrating a response rate of 49 per cent	Study looks at the economic and non-economic individual benefits of FE and skills for learners aged 19 and over.	<a href="https://www.gov.uk/government/publications/the-benefits-of-further-education-learning">https://www.gov.uk/government/publications/the-benefits-of-further-education-learning</a>
McCrone et al	2013	England	Basic training: literacy, numeracy and employability	Predominantly 19-24, with a few 25+	Qualitative analysis of face-to-face and telephone interviews with stakeholders, providers and young adults (Apr-Jul 2012). Qualitative and quantitative analysis of follow up email survey of young adults (response rate of 35.4 per cent).	Impact of basic training on employment readiness and labour market outcomes for young adults NEET.	<a href="https://www.gov.uk/government/publications/research-into-training-for-young-adults-aged-19-to-24-who-are-not-in-education-employment-or-training-neet">https://www.gov.uk/government/publications/research-into-training-for-young-adults-aged-19-to-24-who-are-not-in-education-employment-or-training-neet</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
McMullin and Kilpi-Jakonen	2014	UK	Lower tertiary education, certified and uncertified work-based and personal training	Adult learners up to 65	Quantitative analysis of BHPS (1998-2008)	Study examines how participation opportunities are distributed across life courses and adult learning longitudinally effects labour market outcomes	N/A, book
Myers et al	2014	UK, US, Canada with some others	Foundational learning and work-based learning	Adult learners	Evidence review with element of quality criteria to include more robust studies	Review summarises findings on outcomes of participation in adult learning	<a href="http://www.srdc.org/media/199754/adult-learning-state-of-knowledge.pdf">http://www.srdc.org/media/199754/adult-learning-state-of-knowledge.pdf</a>
OECD	2013	Europe	Not explained	16-65	Quantitative analysis of the OECD's Survey of Adult Skills	Study collects information on how skills are used and then looks at the relationship with labour market participation, income, health and social and political engagement	<a href="http://www.oecd.org/site/piaac/publications.htm">http://www.oecd.org/site/piaac/publications.htm</a>



Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
Ofsted	2012	England	Employability training	16+	Longitudinal interviews with providers, longitudinal qualitative survey with learners, participant observation and focus groups	Study assesses the quality of employability training and employment outcomes for participants	<a href="http://www.ofsted.gov.uk/resources/110178">www.ofsted.gov.uk/resources/110178</a>
Sabates et al	2011	Avon (England)	FE learning	Adults who had children 1991-2	Quantitative analysis of the 2004 wave of the Avon Longitudinal Study of Parents and Children (ALSPAC)	Study looks at the relationship between parental education and their child's educational attainment at Key Stage 3	<a href="http://www.tandfonline.com/doi/abs/10.1080/03054985.2011.601102">http://www.tandfonline.com/doi/abs/10.1080/03054985.2011.601102</a>
SQW, NRDC, GfK NOP and NFER	2013	England	Adult numeracy and literacy at Entry Levels 1 and 2	18+ with a large proportion 25+	Qualitative analysis of 28 face-to-face interviews with students, nine learner video diaries and five follow up interviews	Study aimed to illustrate how learners use and practice literacy and numeracy outside of the classroom, as well as the personal benefits this brings	<a href="https://www.gov.uk/government/publications/english-and-maths-provision-for-adult-learners-benefits">https://www.gov.uk/government/publications/english-and-maths-provision-for-adult-learners-benefits</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
SQW, NRDC, GfK NOP and NFER	2013	England	Adult numeracy and literacy at Entry Levels 1 and 2	18+	Quantitative analysis of longitudinal survey of learners with two time points and literacy and numeracy assessments. 1,016 completed wave two, and 665 completed wave two.	Study illustrated skills gains, employment and social outcomes of learners of basic skills	<a href="https://www.gov.uk/government/publications/english-and-maths-provision-for-adult-learners-benefits">https://www.gov.uk/government/publications/english-and-maths-provision-for-adult-learners-benefits</a>
Swain et al	2014	England	Basic literacy	20+ for 99 per cent of the sample with 3-7 year old children	Qualitative analysis of interviews and focus groups with 101 parents from 74 literacy programmes	Study investigates parental experience of participating in family learning with their children including personal, familial and educational outcomes	<a href="http://ecr.sagepub.com/content/12/1/77">http://ecr.sagepub.com/content/12/1/77</a>
Taylor et al	2012	UK	Improvements in skill levels	?	Quantitative analysis of the BHPS (2000-08)	Study assesses whether improvements in skills levels will affect poverty and income inequality	<a href="http://www.jrf.org.uk/publications/can-improving-uk-skills-reduce-poverty">http://www.jrf.org.uk/publications/can-improving-uk-skills-reduce-poverty</a>

Author	Date	Country	Nature and level of FE:	Profile of learners	Summary of method	Summary of findings	Web link to report
Vorhaus et al	2011	Country comparison mainly focused on the UK	Basic numeracy and literacy (Level 1 and 2)	18+	Evidence review limited to 2004-11 with expert panel contribution of seminal works prior to these dates.	Summarises findings on impacts of basic numeracy and literacy on employment, earnings, personal and wider social benefits.	<a href="https://www.gov.uk/government/publications/improving-adult-literacy-and-numeracy-skills-research-review">https://www.gov.uk/government/publications/improving-adult-literacy-and-numeracy-skills-research-review</a>
Wiseman et al	2013	England	Below Level 2	19+	Literature review, quantitative analysis of ILR data (2008-12), matched ILR, HMRC and National Benefits Database and a survey of 4,000 learners on courses in 2011-12	Study summarises the impact of learning below Level 2 on learners' lives including their employment status, earnings, work prospects, benefits dependency and learning progression.	<a href="https://www.gov.uk/government/publications/impact-of-learning-below-level-2-in-further-education">https://www.gov.uk/government/publications/impact-of-learning-below-level-2-in-further-education</a>

## Methodology

This report brings together evidence from three methodological strands and is guided by an analytic framework. Full detail of the analytic framework and the following research strands is provided in this Annex:

- A Rapid Review of the research evidence relating to the contribution of FE and skills to social mobility.
- Analysis of the Individualised Learner Record (ILR) which has been matched to the Index of Multiple Deprivation (IMD) to examine the profile of FE learners and how this has changed between two points in time (2004/5 and 2012/13).
- Multivariate analysis of the British Household Panel Survey /Understanding Society (years) to identify whether having acquired a qualification through adult learning in FE or having under-taken non-formal adult learning mediates the relationship between parental socio-economic class background and level of parental education, and respondents' own socio-economic class position (measured through occupational status and NS-SEC classification) at a given point in time.

## Analytic framework

The project has been guided by an analytic framework setting out the key domains and research questions of interest, mapped to the Government's social mobility indicators to the domains. The framework differentiates between the effects that will occur directly to learners or society, those that impact on learners' children or and factors that mediate participation in learning and skills.

Table 17: Analytic framework

Scope	Domain	Social Mobility indicator	Research questions
Descriptive/ general/ mediating factors	Social mobility in England	Second chances (achievement of Level 2/Level 3 qualifications by adults aged 19+) (I17)	What are the trends in social mobility in England? What drives intergenerational social mobility? What is the role of skills and FE in this dynamic?
	Patterns of participation in FE		What is the profile of learners participating in FE and adult learning (social background; previous histories of learning/educational achievement; geographical areas; deprivation; etc)? Has this changed over time?
Impacts on individuals' over the life-course	Early years	Child development (gap between children on FSM and others in school readiness up to 5) (I2 and 13); attainment at age 11 (KS2) (I5) Child poverty indicators (relative/absolute poverty, relative deprivation)	<p>What impact does participation in FE (and associated outcomes such as higher education levels, employment) have on:</p> <ul style="list-style-type: none"> <li>- children's cognitive development, motivation to participate, aspirations, early attainment at school.</li> <li>- household deprivation / child poverty?</li> </ul> <p>Do impacts differ by learner characteristic? ie gender, socio-economic background</p>
	Post-16 transition	Attainment at age 16 (% A*-C English/Maths GCSE) (I6 and I7)	<p>What impact does participation in FE (and associated outcomes such as higher education levels, employment, occupation position) have on learners':</p> <ul style="list-style-type: none"> <li>- children's key stage 4 performance and decisions made for post-16 transitions</li> <li>- children's aspirations and motivations and how these align or differ with parental careers/horizons;</li> <li>- family's social capital (for example uptake and experience of work experience)?</li> </ul> <p>Do impacts differ by learner characteristic? ie gender, socio-economic background</p> <p>How do post-16 transitions / early experiences post-16 affect individuals' likelihood of re-engaging in education through FE?</p>

Scope	Domain	Social Mobility indicator	Research questions
	<b>On-going participation</b>	Attainment at age 19 by FSM eligibility (I8) Proportion of 18-24 year olds in PT or FT education or training / Proportion of 18-24 who are NEET (gap by social background) (I10)	<p>What impact does participation in FE/skills (via associated education / occupational position / participation in work) have on learners':</p> <ul style="list-style-type: none"> <li>- children's post-16 participation? Likelihood of children being NEET post-16?</li> </ul> <p>Do impacts differ by learner characteristic? ie gender, socio-economic background</p> <p>What types of learning/training post-16 lead to more/less FE/skills participation later in life? What factors affect progression and transitions into FE/skills? What factors affect dis-engagement/reengagement in FE/skills in adulthood?</p> <p>What contribution does participation in FE/skills have on:</p> <ul style="list-style-type: none"> <li>- a route out of NEET status (for 18/19+ only)?</li> <li>- the likelihood of individuals entering NEET status?</li> </ul>
	<b>Progression in learning</b>	Progression to HE (I12)  Second chances (achievement of Level 2/Level 3 qualifications by adults aged 19+) (I17)	<p>What impact does participation in FE/skills have on learners' progression in learning (higher level and HE)? Which qualifications (nature and type) lead to greatest/lowest progression?</p> <p>Do impacts differ by learner characteristic? ie gender, socio-economic background</p>
	<b>Progression in work and earnings</b>	18-24 participation in employment by social background (I11)  Progression in labour market (proportion of lowest earners – in bottom 20% at age 25-30) experiencing wage progression over 10 years (I16)	<p>What impact does participation in FE/skills have on learners':</p> <ul style="list-style-type: none"> <li>- progression in work and on earnings? Which qualification types deliver the best returns?</li> <li>- likelihood of moving out of low-pay/into quality/professional employment?</li> <li>- likelihood of moving into work? Breaking the no-pay/low-pay cycle?</li> </ul> <p>Do these impacts vary according to the life stage at which learning takes place?</p>

Scope	Domain	Social Mobility indicator	Research questions
		Access to professions (I15)  Child poverty (household income/relative deprivation)	Do impacts differ by learner characteristic? ie gender, socio-economic background  <b>What effect does participation in FE/skills have (via associated education/occupational position /participation in work) on learners' household income?</b>
	<b>Wider individual and societal benefits/returns</b>		What are the wider benefits to individuals from FE/skills? Eg changes to health/wellbeing; aspirations; social inclusion. Do impacts differ by learner characteristic? ie gender, socio-economic background  What are the wider societal benefits arising from FE/skills? Eg economic benefits (increased productivity, decreased unemployment); societal benefits (social cohesion/inclusion / poverty/ income inequality / social mobility)?

Key: direct impact of FE (on individuals who participate or on society); **impact of FE on children / families of individuals that participate in learning**; **mediating factor of participation in FE/skills as an adult.**



## Rapid Evidence Assessment

The aim of the Rapid Evidence Assessment (REA) was to identify the 40 most relevant and robust studies which provided insight into the contribution of Further Education (FE) and skills to social mobility. They were additionally mapped on to indicators and outcomes present in our analytic framework. Initial scoping was carried out on a limited number of six databases: Google Scholar, INGENTA, the British Education Index, IBSS, SAGE and Zetoc. This ensured that the indexes used were restricted to the most useful and relevant databases which would identify a wide range of academic and policy evidence. The publications of BIS, DfE and DWP were assessed for relevant reports, as each has lead responsibility for a number of the government's social mobility indicators. In addition, searches were carried out on the websites of the Sutton Trust, Poverty and Social Inclusion UK (PSE: UK), CentreForum, the Joseph Rowntree Foundation, the Bridge Group, the Equality Challenge Unit, the Equality and Human Rights Commission (EHRC), the Association of Colleges (AoC), the Education and Training Foundation (ETF), the National Institute of Adult and Continuing Education (NIACE), the Association of Employers and Learning Providers (AELP), the Social Mobility Foundation, the Centre for Economic and Social Inclusion, 157 Group, the National Research and Development Centre for Adult Literacy and Numeracy and Ofsted. In order to capture appropriate international examples which have relevance to the English FE and skills system we included searches of publications from a selected number of international sources: OECD, IZA, NCVER, VOCEDplus and CEDEFOP.

The scope of the review was constructed in line with the priorities of BIS and was to fill current gaps in evidence. It comprised:

- adult learners aged 18-19+
- provision below Level 4
- many types of provision including apprenticeships, adult and Community Learning, employability, workplace and provision for benefits claimants
- both participation in training and gaining of qualifications
- studies from 2009 to the present.

A range of primary and secondary search terms were used and are show below in Table 18. An iterative and pragmatic approach was used during the search phase. Where the primary and secondary terms in conjunction yielded no relevant results on both Google Scholar and one or two academic databases, this combination was not pursued any further. Where such primary search terms were nonetheless relevant, such as BTEC or NVQ, these were used in isolation.

**Table 18: Search terms**

Primary Search Terms	Secondary Search Terms
"Further Education" OR FE	"Social mobility"
"Vocational qualification**"	Inclusion
"Vocational education"	Poverty
Adult AND education OR training	"Low pay"
(Adult AND/OR community) AND learning	Employ*
"Adult skills"	Unemploy*
Skills upgrading OR acquisition	(Pay OR wage OR career) AND progression
"Lifelong learning"	Return*
"Continuing education"	Earn*
Workplace OR work-based training	(Family OR children) AND (outcome* OR benefit* OR impact*)
Workplace OR work-based learning	(Employ* OR unemploy*) AND (outcome* OR impact)
Adult participation OR re-engagement	(Health AND/OR wellbeing) AND (outcome* OR impact*)
"Adult learners"	Profession*
Part-time education OR course*	Benefit*
Apprenticeship*	Wages
BTEC	"Job satisfaction"
NVQ	"Job security"
"City and Guilds"	"In-work progression"
"Basic Maths"	Income
"Basic English"	"Social benefit**"
"Adult numeracy"	"Economic benefit**"
"Adult literacy"	"Widening participation"
TOEFL	
IELTS	
ESOL OR EFL	
OCR	
"Cambridge National"	
"Cambridge Technical"	
"Employability skills"	
"Training course**"	
Level 1 OR one	
Level 3 OR three	
Diploma	
Certificate	

Primary Search Terms	Secondary Search Terms
“Access course*”	
“Offender learning”	
“Adult learning grants”	
“24+ Advanced Learning Loan”	
Foundation learning OR course*	

In addition, to ensure we captured research which used key datasets and could thus inform the empirical strategy of our data review, a number of key primary terms and the titles of such datasets were used on Google Scholar (see Table 19).

**Table 19: Search terms to identify papers using longitudinal datasets**

Primary Search Terms	Secondary Search Terms
“Further Education” OR FE	“British Household Panel Survey” OR BHPS
“Vocational qualification*”	“Individualised Learner Record” OR ILR
“Vocational education”	“Labour Force Survey” OR LFS
Adult AND education OR training	“Understanding society”
(Adult AND/OR community) AND learning	“National Child Development Study” OR NCDS
“Adult skills”	“British Cohort Study” OR BCS
Skills upgrading OR acquisition	“Longitudinal Study of Young People in England” OR LYSPE
“Lifelong learning”	
“Continuing education”	
Workplace OR work-based training	
Workplace OR work-based learning	

The final search results went through a three-step sift process using clear and strict inclusion and exclusion criteria (see Figure 19):

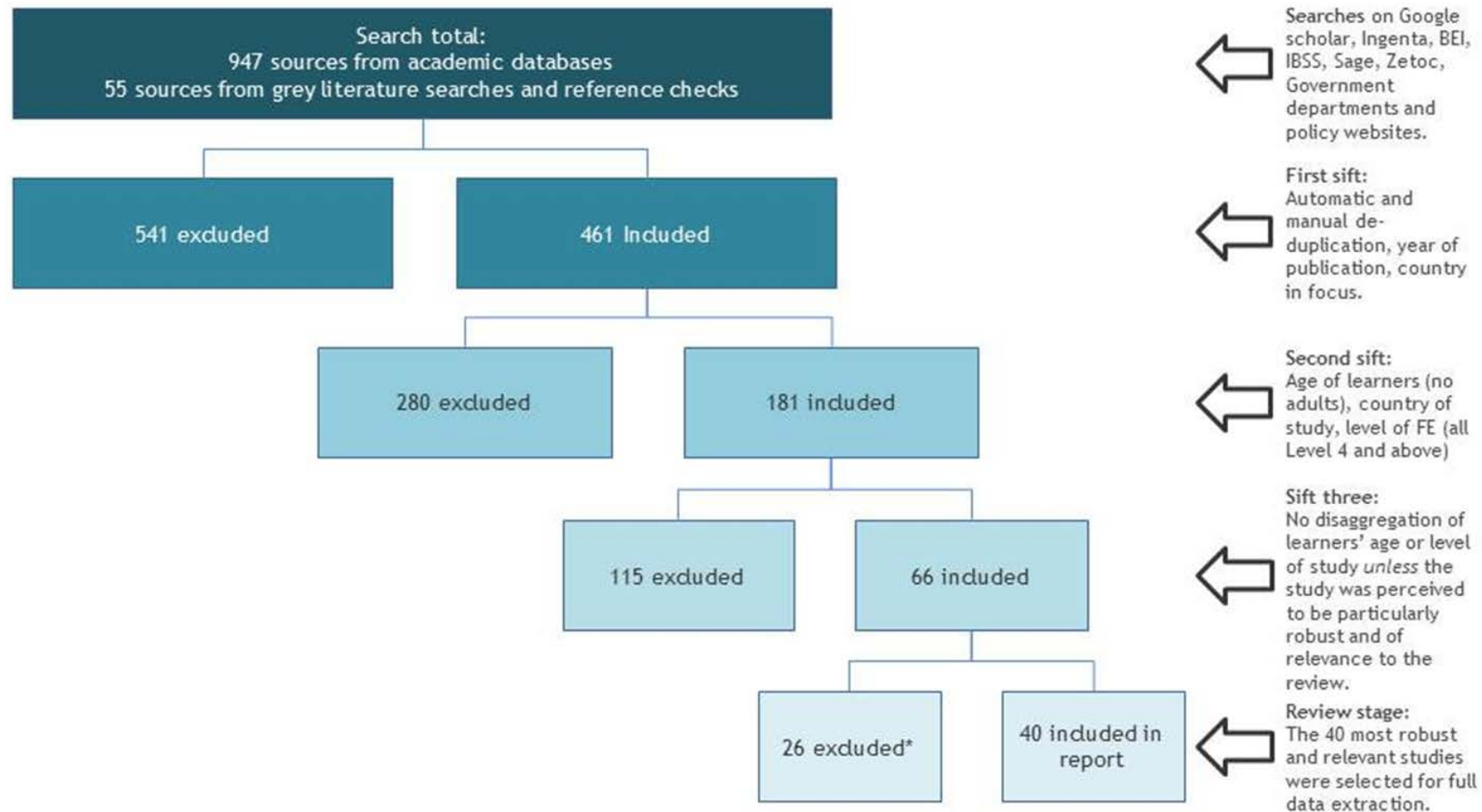
- **First sift (title and abstract):** Duplicates and studies which pre-dated 2009 or did not have any focus on England or the UK were excluded
- **Second sift (full paper):** Studies were excluded where the focus did not include substantial numbers of adult learners, where the geographical scope did not include England or the UK and where the level of FE study was at Level 4 and above. Studies included at this stage were mapped against our analytical framework in order to identify where there were gaps in the evidence base.
- **Third sift (full paper):** The methodology and results of studies were considered in more detail. Studies were excluded if there was no disaggregation of learners’ age or

level of study, if research was not robust **and** if it did not contribute to research questions within the analytic framework. The mapping exercise of the second stage was used to inform these decisions.

- **Review stage:** From the remaining papers, the 40 most relevant and robust studies were selected for full paper review and data was extracted against the analytic framework. This was in order to ensure consistency of approach. In addition, the level of rigour of each article was reported on.

Several difficulties emerged when identifying evidence, in particular in ascertaining that the findings were within the scope of the review. Firstly, qualifications and training under research were not always defined in terms of the National Qualifications Framework (NQF) or Qualifications and Credit Framework (QCF). However, in many examples terminology such as ‘adult literacy’ or ‘employability training’ or other titles was referred to. One example defined Community Learning activities as a *‘wide range of classes and learning activities, mostly unaccredited... [that] bring together adults of different ages and backgrounds to acquire a new skill, re-connect with learning, pursue an interest, prepare for progression to formal courses, and/or learn how to support their children more confidently’* (Harding et al 2014b, p.6). It is unlikely that that much if not all of such learning is below Level 4. Secondly, some studies discussed learning at, above and below level 4 at aggregate level, but were nevertheless of value to the report. For example, analysis of BHPS used a population where the majority undertook qualifications below Level 4, but models estimated the returns of ‘any lifelong learning event’ (Blanden et al 2012, p.507). Lastly, study populations sometimes included learners outside the scope of this research, such as analysis of the Survey of Adult Skills (OECD, 2013) which considered the labour force as a whole between the ages of 16-64. In order to have a broader and more robust evidence base from which to draw conclusions, high quality studies with some focus outside of the scope of this review were included.

Figure 19: Overview of the search and sift process



\*Many of these 26 articles were of relevance and of sufficient quality to be reviewed, but were excluded from the review. In these cases, there were other more relevant and more robust studies which better illustrated the findings.

## Analysis of secondary data (BHPS)

To enhance the evidence emerging from the literature review, we undertook secondary analysis of successive waves of the British Household Panel Survey (BHPS) and Understanding Society with the aim of investigating in greater depth the impact of adult learning on inter-generational social mobility.

The datasets used in the analysis were:

- waves 8-18 of BHPS;
- waves 2-4 of Understanding Society (following the BHPS sample only);

Overall, this resulted in coverage of waves 8 to 21 for BHPS.

We appended successive waves of the two surveys, which together cover the period 1998 to 2012, to obtain one longitudinal dataset. We used the data from wave 8 and followed the BHPS sample because substantial questions on adult training were only included from this point onwards.

Although we had originally planned to combine BHPS and Understanding Society into one dataset so as to achieve as large a number of observations as possible, this posed some methodological problems, as the two surveys, despite covering overlapping populations, have distinct and separate sampling and clustering designs. Therefore, the analysis only focused on the BHPS sample (up to wave 18, and then followed in wave 2, 3 and 4 of Understanding Society – which can be considered as waves 19, 20 and 21 of BHPS). Whilst the BHPS sample is comparatively small, individuals are observed over a long time period, which allows for the analysis of longer-term effects.

Focusing on individuals aged 19 plus, we constructed a variable that, for each year an individual appeared in the survey, recorded whether they had undertaken any adult learning in the year prior to the interview. Episodes of learning in scope for the analysis were all those leading to a qualification (either below level 2, at level 2 or at level 3), either full-time or part-time, as well as episodes of learning not leading to a qualification but of substantial duration (defined as at least 21 hours, or 5 days, or a week in duration). To estimate the impact of parental education and participation in adult learning onto individuals' socio-economic status (as captured by individuals' own occupation), several multinomial logistic regression models were estimated; full results and details of outcome and control variables included are reported in the [BHPS tables Annex](#).

## Decisions on qualifications

Some ambiguities existed in the data about qualification levels, arising from inconsistencies or vagaries in the phrasing of questions in BHPS/Understanding Society. We outline how we dealt with this below and show how the qualifications were categorised when data were ambiguous.

**Qualifications levels:** (only including English qualifications)

Below level 2:

- GCSE D-G
- NVQ – SVQ (level 1)
- Basic skills
- Entry level qualifications
- Key skills

Level 2:

- GCSE A\*-C
- O Levels
- GNVQs (if level not otherwise specified, although we recognise this assumption might not hold true in all instances)
- City and Guilds part 1
- NVQ level 2

Level 3:

- A-levels
- AS-levels
- Baccalaureate
- City and Guilds part II and part III
- ONCs, ONDs or BTEC certificate or diploma (level 3) (in Understanding Society, the categories for BTEC and ONCs/ONDs were separate)
- NVQ level 3 (BHPS)
- NVQ-SVQ levels 3-5 (in Understanding Society these levels were not clearly distinguished)

Other qualifications, including those for which level is not specified:



- Clerical and commercial qualifications (typing, shorthand, bookkeeping, commercial)
- Other qualifications (not otherwise specified)
- Modern apprenticeship (no level specified)
- RSA/OCR/clerical/commercial qualifications
- City and Guilds certificate (because level not clearly specified)

### Decisions on course length

We only applied length criteria to adult learning episodes that did not lead to a qualification, based on the assumption that if a course had led to the acquisition of a qualification, then it could be regarded as 'substantial'.

For BHPS:

- 21 hours minimum if specified in hours
- 5 days if specified in days
- 1 week if specified in weeks
- >0 if specified in months.

For Understanding Society:

- $\geq 5$  days
- $\geq 3 < 5$  only if hours per day  $\geq 7$  (to equate to at least to 21 hours of learning in a week).

### Geographical scope

We excluded all respondents for whom the Government Office Region was not England; consequently, the results reported here refer to respondents in England only.

### Multiple learning episodes

For the purpose of this analysis, where individuals had undertaken multiple episodes of adult learning in any year, the learning episode judged to be most substantial was considered. In these cases, either the longest episode of learning or the one leading to the highest level of qualification was considered. This resulted in 11,826 episodes of adult learning in the BHPS sample, distributed across the 12,748 individuals in the panel over fourteen waves. Whilst only one episode per person per year was captured by this

variable, some of these learning spells may have related to the same individual undertaking learning at successive points in time within our panel.

## ILR analysis

IES obtained ILR data for all learners for two years, 2004/05 and 2013/14. It should be noted that this method does not allow the systematic capturing of progression in learning. The datasets went through two key stages of data manipulation to be ready for analysis:

- Firstly the data were flattened so that one record in the dataset referred to one learner rather than to one learning aim. Details of the highest learning aim in terms of notional qualification level, and the learning aim with the longest planned duration if there were more than one at the same level, were prioritised.
- Secondly the data were linked with the Indices of Multiple Deprivation (IMD) score and rank for the learner's local area based on the learner's postcode.

## BHPS tables

**Table 20: Adult learning episodes, by type**

	Freq.	Per cent
FT education, no qualifications	204	1.73
FT education, qualifications below level 2	10	0.08
FT education, qualifications at level 2	57	0.48
FT education, qualifications at level 3	93	0.79
FT education, other qualifications	139	1.18
PT education, no qualifications	5,589	47.26
PT education, qualifications below level 2	308	2.6
PT education, qualifications at level 2	848	7.17
PT education, qualifications at level 3	572	4.84
PT education, other qualifications	4,006	33.87
Total	11,826	100

Source: BHPS wave 8 - 21

**Table 21: Type of adult learning episode, by survey wave**

	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Total
FT ed., no qualifications	0	0	0	0	0	0	0	33	29	36	25	32	24	25	204
FT ed., below lev 2 qualifications	1	2	0	0	0	2	0	0	1	1	1	2	0	0	10
FT ed., level 2 qualifications	5	10	10	7	1	4	4	3	3	2	2	3	2	1	57
FT ed., level 3 qualifications	7	14	8	5	6	8	4	9	5	4	12	4	6	1	93
FT ed., other qualifications	9	16	13	15	14	18	14	12	10	7	5	2	1	3	139
PT ed., no qualifications, substantial duration	535	490	577	499	455	464	450	378	347	337	269	308	277	203	5,589
PT ed., below lev 2 qualifications	22	10	5	14	9	5	18	13	8	13	9	87	52	43	308
PT ed., level 2 qualifications	69	65	81	70	57	55	75	76	61	57	54	64	31	33	848
PT ed., level 3 qualifications	48	61	39	40	36	31	42	57	48	50	41	34	31	14	572
PT ed., other qualifications	362	336	398	360	257	297	313	272	234	232	222	313	240	170	4,006
Total	1,058	1,004	1,131	1,010	835	884	920	853	746	739	640	849	664	493	11,826

Source: BHPS wave 8 – 21

**Table 22: Number of episodes of adult learning per individual; 1998-2012**

	Frequency	Per cent
0	7,601	59.63
1	2,311	18.13
2	1,171	9.19
3	723	5.67
4	398	3.12
5	240	1.88
6	150	1.18
7	76	0.6
8	36	0.28
9	24	0.19
10	4	0.03
11	11	0.09
12	3	0.02
Total	12,748	100

Source: BHPS wave 8 – 21

**Table 23: Number of episodes of adult learning per individual for individuals with at least one learning spell, 1998-2012**

	Freq.	Per cent
1	2,345	44.75
2	1,195	22.81
3	737	14.06
4	406	7.75
5	247	4.71
6	151	2.88
7	77	1.47
8	38	0.73
9	25	0.48
10	5	0.1
11	11	0.21
12	3	0.06
Total	5,240	100

Source: BHPS wave 8 – 21

**Table 24: Average age of adult learners at first learning episode, by learning type**

	Mean	Median	Std. Dev.	Frequency
FT education, no qualifications	23.66	21.5	6.55	100
PT education, no qualifications	37.17	35	14.23	2,588
Qualifications below level 2	37.10	34	14.22	135
FT education below level 2	28.50	24	11.45	8
PT education below level 2	37.65	35	14.24	127
Qualifications at level 2	33.72	31.5	12.85	402
FT education at level 2	26.79	23	9.34	34
PT education at level 2	34.36	32	12.95	368
Qualifications at level 3	29.61	24	12.50	272
FT education at level 3	20.97	19	5.51	74
PT education at level 3	32.84	30	12.85	198
Other qualifications	36.68	35	12.46	1,743
FT education, other qualifications	27.23	24	9.77	84
PT education, other qualifications	37.16	36	12.39	1,659
Total of adult learners	36.09	34	13.59	5,240
Total of non-adult learners	48.33	47	21.08	7,816

Source: BHPS wave 8 – 21

**Table 25: Gender distribution of adult learners, by learning type, compared to non-adult learners**

	Male Per cent	Female Per cent
FT education, no qualifications	46	54
PT education, no qualifications	47.41	52.59
Qualifications below level 2	43.7	56.3
Qualifications at level 2	42.79	57.21
Qualifications at level 3	46.69	53.31
Other qualifications	48.14	51.86
Total of adult learners	47.14	52.86
Total of non-adult learners	48.63	51.37

Source: BHPS wave 8 - 21

**Table 26: Regional distribution of adult learning episode, by type**

	North East	North West	Yorkshire	East Midlands	West Midlands	East of England	London	South East	South West
FT education, no qualifications	11.11	11.11	12.7	17.46	14.29	7.94	9.52	7.94	7.94
PT education, no qualifications	5.08	13.73	10.79	8.44	10	11.3	11.17	19.07	10.42
Qualifications below level 2	9.46	16.22	17.57	13.51	8.11	9.46	6.76	6.76	12.16
Qualifications at level 2	5.92	12.68	11.27	11.83	10.99	10.42	9.01	14.65	13.24
Quals at level 3	5.26	18.22	10.53	9.31	8.1	8.91	8.1	17.41	14.17
Other qualifications	5.21	14.01	10.6	10.93	11.38	9.58	10.22	17.29	10.8
Total of adult learners	5.35	13.99	10.89	9.77	10.46	10.46	10.44	17.71	10.95
Total of whole population	5.77	14.58	10.95	9.89	10.82	10.04	10.72	16.32	10.9

Source: BHPS wave 8 - 21

**Table 27: Distribution of adult learning episodes by type and prior highest qualification held**

	FT education	PT education	Qualifications below lev 2	Qualifications at level 2	Qualifications at lev 3	Other qualifications	Total (count)
Degree	1.48	58.34	0.87	3.71	3.09	32.51	809
Other higher degree	1.15	46.34	2.03	7.4	4.76	38.33	1,135
A levels & apprentice	5.34	43.39	2.9	7.08	8.82	32.48	862
GCSE or other level 2	0.68	48.31	3.29	10.45	6.29	30.98	1,033
Other qualification	2.45	45.4	4.6	9.2	3.68	34.66	326
No qualification	0.76	46.84	4.3	11.39	3.04	33.67	395
Total	1.95	48.33	2.65	7.85	5.35	33.86	4,560



**Table 28: Odds of participating in adult learning, all individuals (age 19-65)**

	Model 1 Participation in adult learning (odds ratios)	Model 2 Participation in adult learning (odds ratios)
Unemployed	0.794	1.007
Inactive	0.328***	.433***
FT education or training	0.239***	.273***
(Ref category: Employed)		-
Sex	1.257***	1.346***
Age	.958***	0.959***
Number of children	.954***	1.012
Father did not go to school	.626*	0.892
Father left school with no qualifications	.756**	1.052
Father left school with some qualifications (lev. 2)	.775**	0.874
Father got post-school qualifications (lev. 3)	1.004*	1.108
(Ref cat: father has degree or quals. lev. 4>)		-
(Ref/ category: degree)		
Other higher qualification (lev. 4 and 5)		1.694***
Highest qualification lev. 3		0.581***
Highest qualification lev. 2		0.537***
Highest qualification: other (below lev. 2)		0.353***
No qualification		0.176***
Constant	11.82	11.83

N=6643 (Model 1); N=6301 (Model 2) (Individuals aged 19-65)

Note: logistic regression model. \*\*\*=p<0.01; \*\*=p<0.05; \*=p<0.1.

Source: BHPS wave 8 - 21

**Table 29: Odds of participating in adult learning, individuals qualified at level 3 or below (age 19-65)**

	Model 1 Participation in adult learning (odds ratios)	Model 2 Participation in adult learning (odds ratios)
Unemployed	0.784	1.039
Inactive	0.356***	.398***
FT education or training	0.257***	.340***
(Ref category: Employed)	-	-
Sex	1.162**	1.156*
Age	0.954***	.954***
Number of children	1.004	0.9701
(Ref. cat: father did not have qualifications)	-	-
Father left school with some qualifications (lev. 2)	1.045	0.978
Father got post-school qualifications (lev. 3)	1.388***	1.193*
Father has degree or quals. lev. 4>	1.036	0.914
Highest qualification lev. 3		1.784***
Highest qualification lev. 2		1.974***
Highest qualification: other (below lev. 2)		1.548***
(Ref cat.: No qualifications)		-
Constant	9.027	6.227

N=4233 (Model 1); N=3734 (Model 2) (Individuals aged 19-65 with qualifications at level 3 or below)

Note: logistic regression model. \*\*\*=p<0.01; \*\*=p<0.05; \*=p<0.1.

Source: BHPS wave 8 – 21

**Table 30: Models 1, 2, 3 and 4 (Individuals' occupational status at time 0 and time 1)**

Outcome variable: occupational status at time t=0 and t=1	Professional occupation (ref cat: partly skilled or unskilled occupations)				Managerial or technical occupation (ref cat: partly skilled or unskilled occupations)				Non-manual skilled occupation (ref cat: partly skilled or unskilled occupations)				Manual skilled occupations (ref cat: partly skilled or unskilled occupations)			
	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)
Sex (male as ref category)	- 1.073** *	-.948**	-.720**	-.185	-0.233*	-.182	-.257**	-.178	1.048** *	1.073** *	.922***	1.022** *	- 1.492** *	- 1.494** *	- 1.814** *	- 1.771** *
Age	0.114	.174*	.060	.183	- 0.138** *	.115***	.097***	.095**	.003	-.0021	.010	.015	0.416	.035	.012	.023
Age squared	-0.001	-.002*	-.000	-.002	- 0.001**	- .0011** *	- .001***	-.001**	-.0002	-.000	-.0002	-.0002	-.0004	-.0003	-.0002	-.002
N. of children	- 0.397**	-.363	-.466**	-.519*	- 0.231** *	1.137*	- .258***	- .206***	-.0865	-.073	-.154**	-.176**	-.0323	-.047	-.098	-.147**
(Ref cat: father did not have quals.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Father left school with some quals. (lev. 2)	1.536** *	1.086**	.905**	.319	0.598** *	.483**	.297*	.132	.302*	.137	.078	-.136	0.072	.236	-.116	-.187
Father got post-school quals. (lev. 3)	0.895**	-.102	.348	-.290	0.537** *	.317**	.649***	.375**	.243*	-.026	.298*	.041	0.479	-.046	.190	.105
Father has degree or other tertiary quals. (lev. 4>)	2.519** *	1.348**	1.540** *	.419	1.119** *	.582**	.669**	.056	.447*	.122	.273	-.240	0.176	-.876**	-.832**	-.938**
Highest qualification lev. 3		2.521** *		2.875** *		2.047** *		2.258** *		1.508** *		1.677** *		.782***		.887***
Highest qualification lev. 2		1.051		.349		1.452** *		1.370** *		1.222** *		1.186** *		.505**		.463**
Highest qualification: other (below lev. 2)		.522		-.254		.955***		.777***		.982***		.943***		.506**		.348
(Ref category: No qualification)		-		-		-		-		-		-		-		-
Adult learning: Substantial, with no qualifications			.775**	.636			.458***	.219			.100	-.010			-.061	-.078

Outcome variable: occupational status at time t=0 and t=1	Professional occupation (ref cat: partly skilled or unskilled occupations)				Managerial or technical occupation (ref cat: partly skilled or unskilled occupations)				Non-manual skilled occupation (ref cat: partly skilled or unskilled occupations)				Manual skilled occupations (ref cat: partly skilled or unskilled occupations)			
	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)	Model 1 (t=0)	Model 2 (t=0)	Model 3 (t=1)	Model 4 (t=1)
Adult learning: Qualifications below level 2			- 14.167	- 13.321			- 1.353**	- 1.746**			-.666	-.739			.008	-.002
Adult learning: Qualifications at level 2			-.188	.256			-.402	-.286			-.489*	-.461			.252	.305
Adult learning: Qualifications at lev. 3			- 14.010	- 13.349			-.231	-.530			-.090	-.252			.048	-.077
Adult learning: Other qualifications			.580	.405			.118	.050			-.349**	-.344**			-.180	-.156
(Ref. cat: no adult learning)			-	-			-	-			-	-			-	-
Constant	-4.502	-.700	-3.366	-7.249	-2.470	-3.890	-1.561	-3.194	-.240	-1.244	-1.058	-1.308	-.298	-.673	.636	-.133

Model 1, N=2527; Model 2, N=2187; Model 3, N=2266; Model 4, N=2004

N= Individuals aged 19-65 with qualifications at level 3 or below

Note: multinomial logistic regression model. \*\*\*=p<0.01; \*\*=p<0.05; \*=p<0.1.

Source: BHPS wave 8 – 21

**Table 31: Models 5 and 6 (individuals' occupational status at time 5)**

Outcome variable: Occupational status at time t=5		Professional occupation (ref cat: partly skilled or unskilled occupations)		Managerial or technical occupation (ref cat: partly skilled or unskilled occupations)		Non-manual skilled occupation (ref cat: partly skilled or unskilled occupations)		Manual skilled occupations (ref cat: partly skilled or unskilled occupations)	
		Model 5 (t=5)	Model 6 (t=5)	Model 5 (t=5)	Model 6 (t=5)	Model 5 (t=5)	Model 6 (t=5)	Model 5 (t=5)	Model 6 (t=5)
	Sex	-.711**	-.167	-.174	-.039	.867***	.998***	-1.811***	-1.883***
	Age	.137	.207	.047	.069	.016	.006	.030	.035
	Age squared	-.001	-.002	-.000	-.000	-.000	-.000	-.000	-.000
	Number of children	-.424*	-.299	-.046	-.016	-.101	-.050	-.042	-.031
<b>Paternal education</b>	(Ref cat: father did not have qualifications)								
	Father left school with some qualifications (lev. 2)	.632	-.007	.129	.051	.140	-.005	-.262	-.301
	Father got post-school qualifications (lev. 3)	.565	-.001	.275	.086	.159	.014	-.258	-.246
	Father has degree or other tertiary quals. (lev. 4>)	1.907***	.869	.674	.073	.380	-.098	-.181	-.377
<b>Own education</b>	Highest qualification lev. 3		3.106***		2.035***		1.786***		.463
	Highest qualification lev. 2		1.428		1.128***		1.215***		.204
	Highest qualification: other (below lev. 2)		1.447		.682		1.100***		.220
	(Ref category: No qualification)								

Outcome variable: Occupational status at time t=5		Professional occupation (ref cat: partly skilled or unskilled occupations)		Managerial or technical occupation (ref cat: partly skilled or unskilled occupations)		Non-manual skilled occupation (ref cat: partly skilled or unskilled occupations)		Manual skilled occupations (ref cat: partly skilled or unskilled occupations)	
		Model 5 (t=5)	Model 6 (t=5)	Model 5 (t=5)	Model 6 (t=5)	Model 5 (t=5)	Model 6 (t=5)	Model 5 (t=5)	Model 6 (t=5)
<b>Adult learning</b>	(Ref cat: no adult learning)								
	Substantial, with no qualifications	1.415***	1.777**	.655***	.522**	.254	.147	.090	.076
	Qualifications below level 2	-12.481	-10.140	-.681	-1.257	-.441	-.574	-.017	-.098
	Qualifications at level 2	1.280	2.179**	-.083	-.009	-.144	-.167	.735**	.769**
	Qualifications at lev. 3	1.942**	2.513**	.557	.247	-.053	-.302	1.342***	1.304***
	Other qualifications	1.28**	1.498**	.472**	.276	.340*	.238	.097*	.117
	Constant	-5.257	-9.438	-.297	-2.187		-1.432	.404	-.038

Model 5: N = 1455; Model 6: N=1290

N= Individuals aged 19-65 with qualifications at level 3 or below

Note: multinomial logistic regression model. \*\*\*=p<0.01; \*\*=p<0.05; \*=p<0.1.

Source: BHPS wave 8 – 21

## ILR Tables

**Table 32: Learners by type of learning/funding model, 2004/05, 2012/13 and 2013/14**

	2004/05		2012/13		2013/14		Change	% change
	Number	%	Number	%	Number	%		
Community Learning	872,100	12.6	584,500	11.6	568,900	12.0	-303,200	-34.8
FE 16-19	736,300	10.6	877,200	17.5	840,000	17.7	103,700	14.1
Adult Skills Funding (inc. Apps)	4,146,100	59.7	2,792,800	55.6	2,528,700	53.3	-1,617,400	-39.0
ESF co-financed	429,700	6.2	157,100	3.1	244,800	5.2	-184,900	-43.0
Other funding stream	175,900	2.5	153,200	3.1	10,300	0.2	-165,600	-94.1
No SFA/EFA funding for this aim	582,000	8.4	454,800	9.1	549,000	11.6	-33,000	-5.7
Total N=	6,942,100	100	5,019,600	100	4,741,700	100	-2,200,400	-31.7

Source: ILR 2004/05, 2012/13 and 2013/14



**Table 33: Learners by gender and type of learning/funding model, 2012/13 and 2013/14 (row percentages)**

	2012/13			2013/14		
	Female	Male	Total N=	Female	Male	Total N=
Population - England 15+	51.3	48.7	43,640,400	51.3	48.7	43,640,400
Sector total	53.0	47.0	5,019,700	53.1	46.9	4,741,700
Community Learning	72.7	27.3	584,500	72.1	27.9	568,900
FE 16-19	48.1	51.9	877,200	48.1	51.9	840,000
Adult Skills Funding (including Apprenticeships)	59.4	40.6	1,340,900	51.8	48.2	2,528,700
ESF co-financed	39.6	60.4	157,100	41.7	58.3	244,800
Other funding stream	27.7	72.3	153,200	27.4	72.6	10,300
No SFA/EFA funding for this aim	48.3	51.7	454,800	53.0	47.0	549,000

Source: ILR 2012/13 and 2013/14; 2011 Census of Population

**Table 34: Learners by gender and level of learning, all funding streams, 2013/14 (row percentages)**

	Female	Male	N=
Other/mixed	65.2	34.8	730,100
Entry Level	53.7	46.3	460,700
Level 1	43.6	56.4	679,900
Level 2	49.9	50.1	1,602,300
Level 3	55.2	44.8	1,121,800
Level 4+	55.5	44.5	136,700
All levels	53.1	46.9	4,731,500

Source: ILR 2013/14

**Table 35: Learners by age and type of learning/funding model, 2013/14 (%)**

	England 15+	Sector total	Community Learning	FE 16-19 Responsive	Adult Skills Funding	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
14-15	1.5	0.8	0.0	0.3	0.1	4.3	2.3	3.7
16	1.5	8.4	0.0	40.0	1.5	3.7	49.6	2.0
17	1.5	8.4	0.1	36.6	2.6	3.5	35.7	2.3
18	1.6	6.2	0.3	19.9	3.6	4.1	8.8	4.0
19-20	3.2	8.4	1.9	2.7	11.8	8.1	1.7	8.1
21-24	6.6	11.2	5.5	0.5	15.9	12.3	0.5	11.7
25-29	8.4	10.6	9.9	0.0	13.4	11.7	0.3	14.5
30-39	16.2	16.5	22.0	0.0	19.8	17.8	0.4	20.9
40-49	17.8	14.5	19.0	0.0	17.4	18.3	0.4	17.1
50-64	21.9	11.8	23.9	0.0	12.6	15.4	0.3	12.4
65+	19.8	3.2	17.4	0.0	1.5	0.5	0.0	2.7
Total N=	43,640,400	4,736,100	565,200	840,000	2,528,700	244,800	10,300	547,100

Source: ILR 2013/14; 2011 Census of Population

**Table 36: Learners by age and level of learning, all funding streams, 2013/14 (%)**

	Other/mixed	Entry Level	Level 1	Level 2	Level 3	Level 4+	All levels
14-15	1.3	1.1	1.9	0.6	0.1	0.0	0.8
16	1.1	2.9	9.1	8.1	16.5	0.0	8.4
17	1.1	2.1	5.2	7.5	20.0	0.4	8.4
18	1.4	2.0	3.8	6.3	12.1	7.3	6.2
19-20	3.2	5.0	6.9	9.4	11.1	19.4	8.4
21-24	6.6	9.3	11.2	13.4	10.8	18.8	11.2
25-29	9.7	13.0	11.4	11.8	7.6	13.5	10.6
30-39	19.6	24.0	18.4	16.8	9.6	18.4	16.5
40-49	18.5	19.8	16.5	14.9	7.7	15.1	14.5
50-64	22.7	17.3	13.8	10.4	3.9	7.0	11.8
65+	14.6	3.3	1.7	0.8	0.4	0.2	3.2
N=	726,000	460,600	679,200	1,601,800	1,121,700	136,600	4,726,000

Source: ILR 2013/14

**Table 37: Learners by ethnicity and type of learning/funding model, 2013/14 (%)**

	England 15+	Sector total	Community Learning	FE 16-19	Adult Skills Funding	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
White	87.0	81.2	83.6	80.3	80.5	84.2	84.9	82.6
Mixed	1.6	2.7	1.7	4.0	2.7	2.5	4.0	2.3
Asian	7.3	7.9	8.6	8.6	7.8	7.1	5.0	7.3
Black	3.1	6.1	4.2	5.7	7.0	4.9	5.5	5.3
Other	1.0	2.0	2.0	1.5	2.1	1.2	0.6	2.4
Total N=	43,640,400	4,606,500	544,700	827,100	2,480,800	220,800	9,900	523,100

Source: ILR 2013/14; 2011 Census of Population

**Table 38: Learners by ethnicity and level of learning, all funding streams, 2013/14 (%)**

	Other/mixed	Entry Level	Level 1	Level 2	Level 3	Level 4+	All levels
White	84.7	64.8	78.7	83.6	83.5	83.3	81.2
Mixed	1.9	3.0	3.2	2.7	3.1	2.3	2.7
Asian	7.3	16.0	8.1	6.5	6.9	7.7	7.9
Black	4.2	10.2	7.7	5.8	5.4	5.1	6.1
Other	1.8	6.0	2.3	1.4	1.2	1.5	2.0
Total N=	697,100	447,200	646,900	1,570,100	1,104,900	130,500	4,596,600

Source: ILR 2013/14

**Table 39: Learners by disability and type of learning/funding model, 2013/14 (row percentages)**

	Activities limited a lot	Activities limited a little	LDD/disability	No LDD/disability	Total N=
Population - England 16+	9.9	11.0	-	79.1	42,989,600
Sector total	-	-	16.3	83.7	4,493,300
Community Learning	-	-	17.8	82.2	512,600
FE 16-19	-	-	23.6	76.4	796,800
Adult Skills Funding (inc. Apprenticeships)	-	-	14.7	85.3	2,439,500
ESF co-financed	-	-	13.5	86.5	237,900
Other funding stream	-	-	18.1	81.9	9,600
No SFA/EFA funding for this aim	-	-	12.0	88.0	496,900

Source: ILR 2013/14; 2011 Census of Population

**Table 40: Learners by disability and level of learning, all funding streams, 2013/14 (row percentages)**

	LDD/disability	No LDD/disability	Total N=
Other/mixed	17.1	82.9	663,600
Entry Level	24.9	75.1	431,300
Level 1	23.1	76.9	640,700
Level 2	13.6	86.4	1,545,200
Level 3	12.6	87.4	1,072,700
Level 4+	10.8	89.2	130,300
All levels	16.3	83.7	4,483,700

Source: ILR 2013/14

**Table 41: Learners by IMD quintile and type of learning/funding model, 2013/14 (%)**

	England 16+	Sector total	Community Learning	FE 16-19	Adult Skills Funding (inc. Apps)	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
IMDQ 1 - Most deprived	19.2	30.7	25.0	28.5	33.7	39.0	14.9	22.9
IMDQ 2	20.2	22.5	19.8	21.8	23.5	24.8	14.3	21.4
IMDQ 3	20.5	17.9	18.4	18.1	17.4	16.6	29.6	20.0
IMDQ 4	20.3	15.2	17.8	16.3	13.8	11.5	20.0	18.5
IMDQ 5 - Least deprived	19.9	13.7	19.0	15.4	11.7	8.1	21.2	17.2
Total N=	41,428,600	4,667,900	564,700	834,600	2,486,200	242,300	10,100	529,900

Source: ILR 2013/14; 2011 Census of Population

**Table 42: Learners by IMD quintile and type of learning/funding model, 2004/05 and 2013/14 (%)**

	Community 04-05	Community 13-14	16-19 04-05	16-19 13-14	Adult/Apps 04-05	Adult/Apps 13-14
IMDQ 1 - Most deprived	16.8	25.0	26.7	28.5	24.7	33.7
IMDQ 2	17.9	19.8	20.7	21.8	21.1	23.5
IMDQ 3	19.7	18.4	18.3	18.1	19.3	17.4
IMDQ 4	21.9	17.8	17.3	16.3	18.2	13.8
IMDQ 5 - Least deprived	23.7	19.0	17.0	15.4	16.8	11.7

Source: ILR 2004/05 and 2013/14

**Table 43: Learners by IMD quintile and type of learning/funding model, 2004/05 and 2013/14 (%)**

	ESF 04-05	ESF 13-14	Other 04-05	Other 13-14	No SFA/EFA 04-05	No SFA/EFA 13-14
IMDQ 1 - Most deprived	32.6	39.0	31.9	14.9	24.4	22.9
IMDQ 2	22.5	24.8	25.8	14.3	20.8	21.4
IMDQ 3	18.3	16.6	18.6	29.6	19.2	20.0
IMDQ 4	14.9	11.5	14.3	20.0	18.3	18.5
IMDQ 5 - Least deprived	11.7	8.1	9.3	21.2	17.3	17.2

Source: ILR 2004/05 and 2013/14

**Table 44: Learners by prior employment status and type of learning/funding model, 2013/14 (%)**

	Sector total	Community Learning	FE 16-19	Adult Skills Funding (inc. Apps)	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
Employed 16hrs+	22.2	7.0	1.5	30.9	12.8	1.6	17.7
Employed <16hrs	5.4	5.6	6.6	4.5	3.4	5.5	9.7
Employed hrs not known	2.2	1.5	0.1	2.8	1.7	0.0	2.6
Self-emp	0.5	1.0	0.0	0.5	0.3	0.0	1.1
Unemployed	37.1	23.0	21.7	42.9	70.9	10.0	18.5
Inactive	14.0	30.5	27.7	8.7	10.5	73.1	14.9
Not known	18.6	31.5	42.4	9.7	0.4	9.9	35.4
Total N=	2,902,200	162,200	462,200	1,757,600	168,400	9,400	342,400

Source: ILR 2013/14



**Table 45: Learners by prior employment status and level of learning, all funding streams, 2013/14 (%)**

	Other/mixed	Entry Level	Level 1	Level 2	Level 3	Level 4+	All levels
Employed 16hrs+	8.5	4.1	4.4	32.7	36.8	28.9	22.2
Employed <16hrs	4.7	3.9	3.1	5.7	7.3	11.7	5.4
Employed hrs not known	1.9	0.3	0.3	2.4	4.6	4.0	2.2
Self-emp	0.6	0.4	0.4	0.6	0.5	0.9	0.5
Unemployed	35.4	56.7	61.6	35.1	12.6	12.7	37.1
Inactive	23.7	18.6	13.5	10.2	13.2	11.9	14.0
Not known	25.2	16.1	16.7	13.4	25.1	29.8	18.6
Total N=	288,800	369,000	536,400	972,700	638,700	93,000	2,898,600

Source: ILR 2013/14

**Table 46: Learners by prior employment status and type of learning/funding model, known statuses only, 2013/14 (%)**

	Sector total	Community Learning	FE 16-19	Adult Skills Funding (inc. Apps)	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
Employed 16hrs+	27.2	10.1	2.6	34.2	12.9	1.8	27.4
Employed <16hrs	6.7	8.2	11.4	4.9	3.5	6.1	15.1
Employed hrs not known	2.7	2.2	0.2	3.1	1.7	0.0	4.0
Self-emp	0.6	1.4	0.1	0.6	0.3	0.0	1.7
Unemployed	45.6	33.5	37.7	47.6	71.2	11.1	28.7
Inactive	17.2	44.5	48.0	9.6	10.5	81.1	23.1
Total N=	2,361,200	111,200	266,300	1,586,400	167,700	8,400	221,100

Source: ILR 2013/14

**Table 47: Learners by prior employment status and level of learning, known statuses only, all funding streams, 2013/14, (%)**

	Other/mixed	Entry Level	Level 1	Level 2	Level 3	Level 4+	All levels
Employed 16hrs+	11.3	4.9	5.3	37.7	49.0	41.2	27.2
Employed <16hrs	6.2	4.6	3.8	6.6	9.7	16.7	6.7
Employed hrs not known	2.6	0.3	0.3	2.7	6.1	5.7	2.7
Self-emp	0.8	0.4	0.4	0.7	0.6	1.3	0.6
Unemployed	47.3	67.5	73.9	40.5	16.8	18.2	45.6
Inactive	31.7	22.2	16.3	11.8	17.7	16.9	17.2
Total N=	216,000	309,800	446,800	842,600	478,700	65,300	2,359,100

Source: ILR 2013/14

**Table 48: Learners by notional NVQ Level of highest learning aim and type of training/funding model, 2013/14 (%)**

	Sector total	Community Learning	FE 16-19	Adult Skills Funding (inc. Apps)	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
Other/mixed	15.4	92.9	0.3	0.2	46.6	0.7	15.6
Entry Level	9.7	5.0	4.0	14.1	4.1	2.6	6.0
Level 1	14.4	1.7	13.5	17.5	20.9	8.2	11.7
Level 2	33.9	0.3	24.0	48.6	26.5	84.0	18.0
Level 3	23.7	0.0	58.1	18.7	1.7	4.4	28.9
Level 4+	2.9	0.0	0.2	1.1	0.2	0.0	19.7
Total N=	4,731,500	564,700	839,900	2,527,500	244,700	10,300	544,400

Source: ILR 2013/14

**Table 49: Learners by notional NVQ Level of highest learning aim and type of training/funding model, 2012/13 (%)**

	Sector total	Community Learning	FE 16-19	Adult Skills Funding (inc. Apps)	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
Other/mixed	17.4	90.8	0.9	1.4	53.6	22.4	38.3
Entry Level	8.7	5.2	3.7	11.7	5.7	15.6	2.9
Level 1	14.6	2.8	16.3	16.4	21.1	27.0	8.8
Level 2	32.8	1.1	22.8	45.8	18.2	33.0	17.4
Level 3	23.9	0.1	56.1	22.9	1.3	2.1	13.6
Level 4+	2.7	0.0	0.2	1.7	0.2	0.0	19.0
Total N=	5,019,700	584,500	877,200	2,792,900	157,100	153,200	454,800

Source: ILR 2012/13

**Table 50: Learners by notional NVQ Level of highest learning aim and type of training/funding model, 2004/05 (%)**

	Sector total	Community Learning	FE 16-19	Adult Skills Funding (inc. Apps)	ESF co-financed	Other funding stream	No SFA/EFA funding for this aim
Other/mixed	15.7	0.4	2.4	12.8	74.7	21.9	30.3
Entry Level	13.4	41.0	4.7	11.6	2.3	1.8	7.2
Level 1	26.0	50.6	13.8	26.2	6.0	5.2	24.3
Level 2	26.7	6.4	26.7	32.6	10.2	62.5	16.6
Level 3	16.0	1.5	52.2	15.0	5.5	8.4	8.8
Level 4+	2.2	0.0	0.2	1.7	1.3	0.3	12.7
Total N=	6,941,900	872,100	736,300	4,146,000	429,700	175,900	582,000

Source: ILR 2004/05

**Table 51: Learners by NVQ level and IMD, all funding streams, 2013/14 (%)**

	IMDQ 1 - Most deprived	IMDQ 2	IMDQ 3	IMDQ 4	IMDQ 5 - Least deprived	All areas
Other/mixed	12.6	14.0	16.1	18.1	20.8	15.5
Entry Level	13.9	10.9	7.9	6.0	4.7	9.7
Level 1	18.8	15.3	12.5	10.6	8.7	14.3
Level 2	34.6	35.0	34.5	32.8	30.7	33.9
Level 3	18.0	22.2	25.7	28.8	31.4	23.8
Level 4+	2.1	2.6	3.2	3.6	3.7	2.8
Total N=	1,430,500	1,050,200	834,700	705,700	637,000	4,658,100

Source: ILR 2013/14

**Table 52: Learners by NVQ level and IMD, FE 16-19 learning, 2013/14 (%)**

	IMDQ 1 - Most deprived	IMDQ 2	IMDQ 3	IMDQ 4	IMDQ 5 - Least deprived	All areas
Other/mixed	0.4	0.3	0.2	0.2	0.2	0.3
Entry Level	5.6	4.7	3.5	2.8	2.3	4.0
Level 1	19.3	15.1	11.7	9.1	6.9	13.4
Level 2	27.9	26.2	23.7	20.6	17.6	24.0
Level 3	46.8	53.6	60.7	67.0	72.7	58.1
Level 4+	0.1	0.2	0.2	0.3	0.3	0.2
Total N=	237,600	181,600	151,400	135,900	128,100	834,500

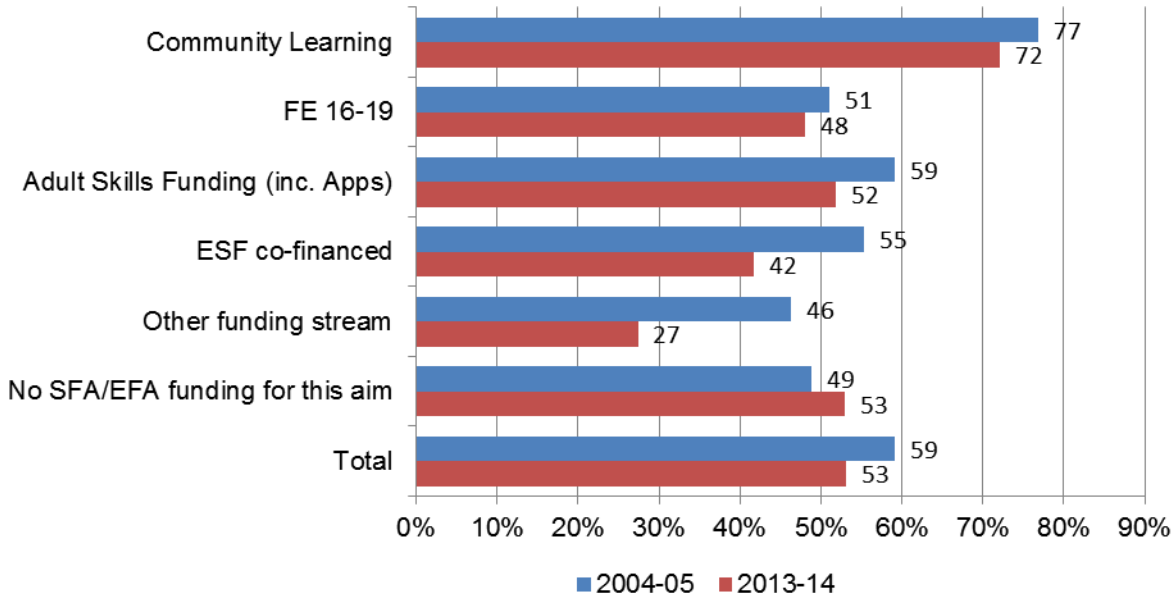
Source: ILR 2013/14

**Table 53: Learners by NVQ level and IMD, Adult Skills Funding (including Apprenticeships) learning, 2013/14 (%)**

	IMDQ 1 - Most deprived	IMDQ 2	IMDQ 3	IMDQ 4	IMDQ 5 - Least deprived	All areas
Other/mixed	0.1	0.2	0.2	0.2	0.2	0.2
Entry Level	19.1	15.3	11.5	9.0	6.9	14.1
Level 1	21.8	18.0	15.0	13.4	11.1	17.3
Level 2	45.2	48.3	50.8	51.4	52.2	48.6
Level 3	13.1	17.3	21.1	24.4	27.9	18.8
Level 4+	0.6	1.0	1.3	1.6	1.7	1.1
Total N=	836,600	583,600	432,400	342,600	290,000	2,485,100

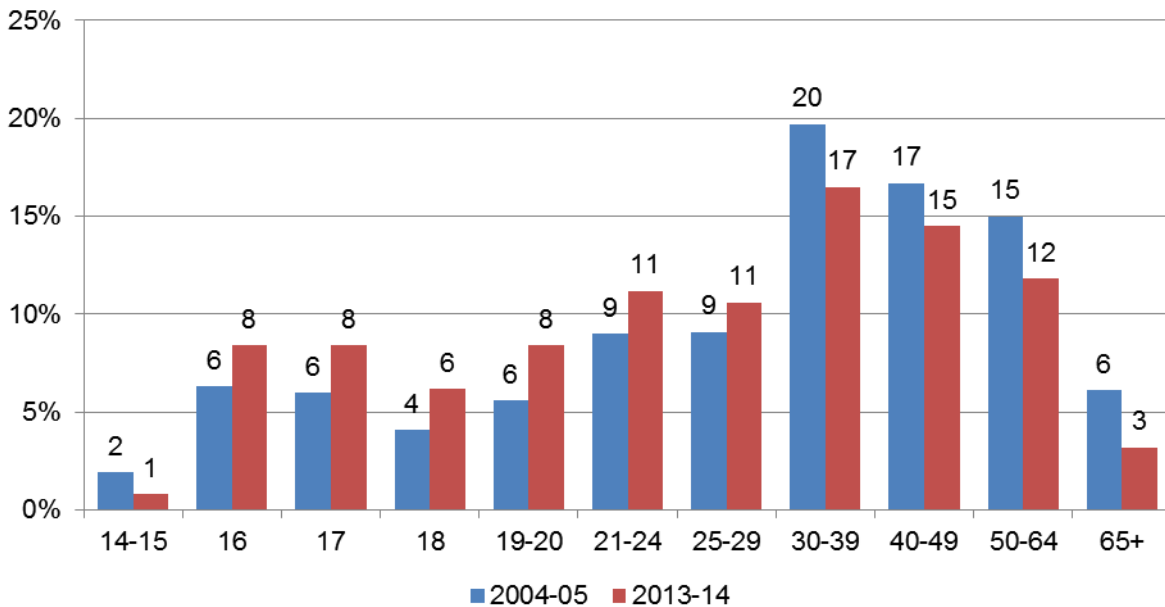
Source: ILR 2013/14

**Figure 20: Proportion of female learners by type of learning/funding model, 2004/05 and 2013/14**



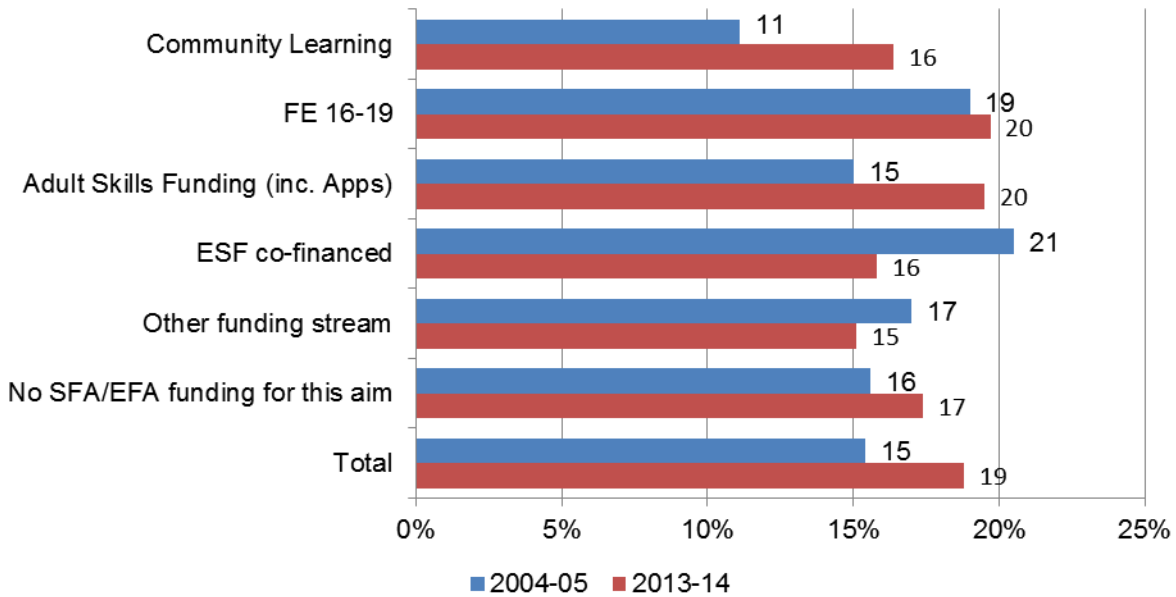
Source: ILR 2004/05 and 2013/14

**Figure 21: Age profile of learners, 2004/05 and 2013/14**



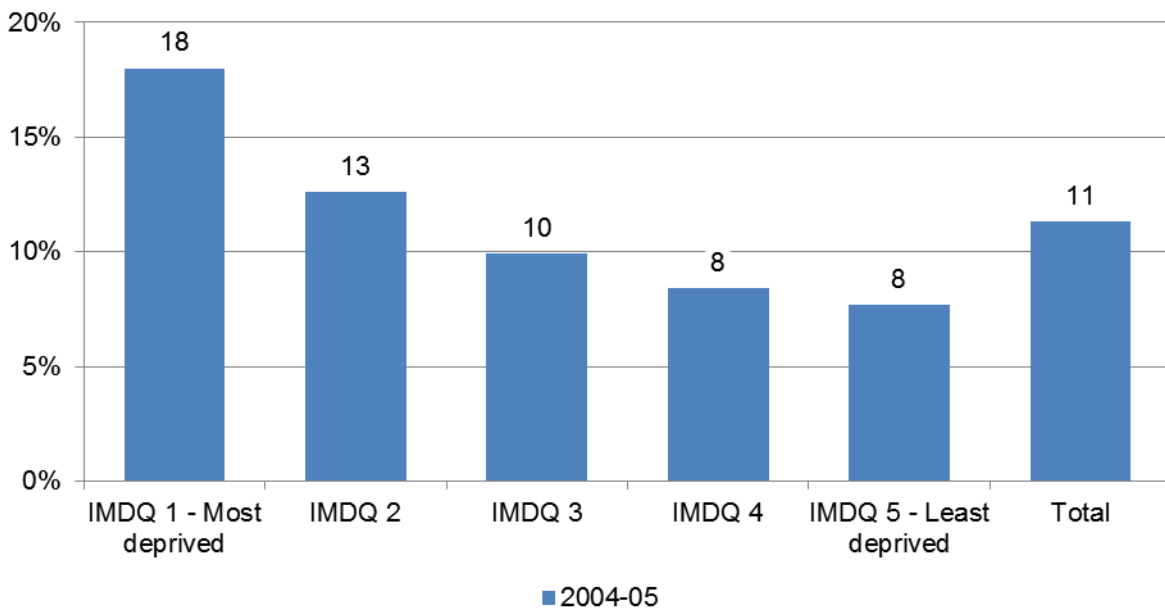
Source: ILR 2004/05 and 2013/14

**Figure 22: Proportion of non-white learners by type of learning/funding model, 2004/05 and 2013/14**

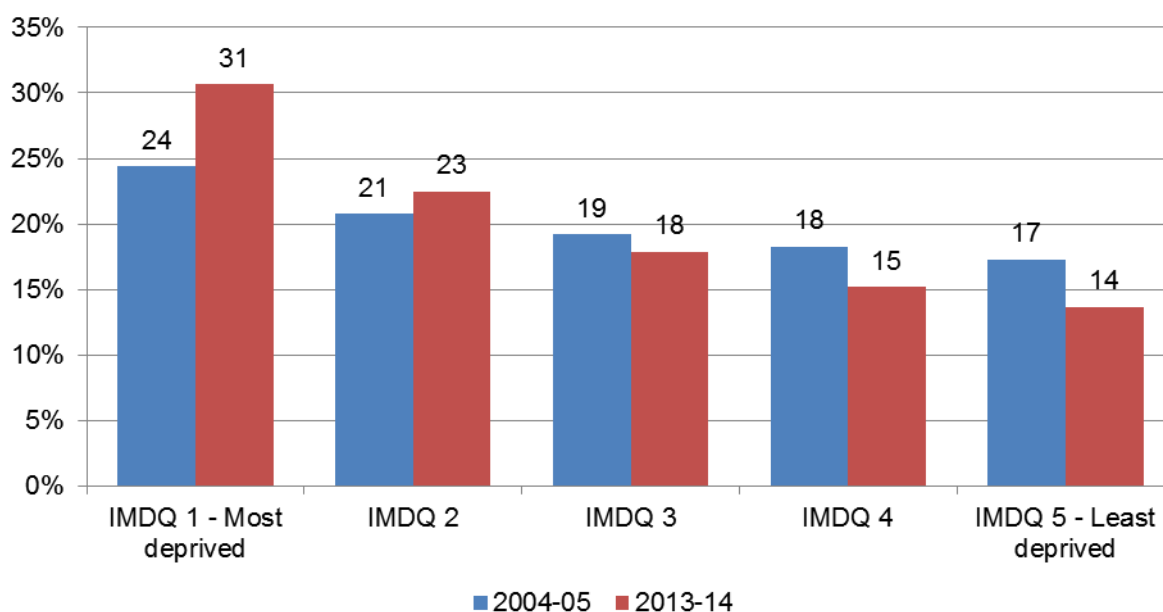


Source: Source: ILR 2004/05 and 2013/14

**Figure 23: Learners as a proportion of the adult population by IMD quintile, 2013/14**



Source: ILR 2013/14; 2011 Census of Population

**Figure 24: Profile of learners by IMD quintile, 2004/05, 2013/14**

Source: ILR 2004/05 and 2013/14

**Table 54: Learners by prior attainment and IMD quintile, all funding streams, 2013/14 (%)**

	IMDQ 1 - Most deprived	IMDQ 2	IMDQ 3	IMDQ 4	IMDQ 5 - Least deprived	All areas
No qualifications	21.0	16.7	13.6	11.4	8.9	15.6
Below Level 1	6.6	5.1	3.9	3.0	2.7	4.7
Level 1	16.6	15.5	14.5	13.4	12.2	14.9
Level 2	23.7	25.3	26.6	27.6	27.9	25.8
Level 3	8.4	9.9	10.8	11.4	11.6	10.0
Level 4+	4.6	6.8	7.6	8.5	9.4	6.9
Other qual., level not known	1.7	1.7	1.6	1.5	1.5	1.6
Not known	17.4	19.1	21.4	23.2	25.9	20.5
N=	1,433,100	1,052,400	836,700	707,300	638,300	4,667,900

Source: ILR 2013/14



**Table 55: Learners by level of learning and prior attainment, all funding streams, 2013/14 (%)**

	No qualifications	Below Level 1	Level 1	Level 2	Level 3	Level 4+	Other qual., level not known	Not known	All
Other/ mixed	8.3	6.0	4.7	4.3	7.5	19.5	15.3	47.4	15.4
Entry Level	20.8	31.7	5.7	3.0	3.9	11.9	22.4	8.7	9.7
Level 1	21.2	24.9	17.6	9.0	10.3	16.4	23.7	11.7	14.4
Level 2	40.8	30.4	53.4	34.9	38.3	32.4	23.8	12.8	33.9
Level 3	8.2	6.5	17.8	46.9	27.7	11.1	11.3	17.9	23.7
Level 4+	0.6	0.5	0.8	1.8	12.3	8.7	3.3	1.4	2.9
N=	744,200	221,600	704,200	1,216,900	474,400	325,100	78,400	966,900	4,731,500

Source: ILR 2013/14

## Data tables

**Table 56: Marginal returns to Level 3 qualifications**

Comparison	Level 2
RSA Level 3	0.093*** (0.018)
City and Guilds Level 3	0.111*** (0.004)
BTEC Level 3	0.134*** (0.005)

Aggregated marginal returns to qualifications – pooled LFS data 1996-2009

\*\*\* = 1% level of statistical significance

Source: Conlon and Patrignani (2010), Table 5, p.14

**Table 57: Marginal returns to Level 2 qualifications**

Comparison	Level 1
RSA Level 2	0.170*** (0.029)
City and Guilds Level 2	0.088*** (0.007)
BTEC Level 2	0.075*** (0.021)

Aggregated marginal returns to qualifications – pooled LFS data 1996-2009

\*\*\* = 1% level of statistical significance

Source: Conlon and Patrignani (2010), Table 7, p.15

**Table 58: Marginal returns to Level 1 qualifications**

Comparison	No qualifications
RSA Level 1	0.165*** (0.0088)
City and Guilds Level 1	0.087*** (0.0108)
BTEC Level 1	0.156*** (0.0395)

Aggregated marginal returns to qualifications – pooled LFS data 1996-2009

\*\*\* = 1% level of statistical significance

Source: Conlon and Patrignani (2010), Table 10, p.17

The numbers in black reflect the assumption that 50 per cent of the employment benefit is attributed to the qualification, whilst the higher assumed that 100 per cent of the employment gain results from obtaining the qualification. The figures in red assumes that the earnings premium associates with vocational qualification attainment is non-negative, whilst the numbers presented in green assume that this and enhanced employment probabilities are non-negative.

**Table 59: Exchequer rates of return associated with vocational qualification attainment (male)**

		RSA	City & Guilds Range		BTEC Range		NVQ Range	
<b>Level 1</b>	NPV Benefits	-	£18,000 £18,000 £20,000	- £19,000 - £19,000 - £22,000	-		-£26,000 -£22,000 -£3,000	- -£17,000 - -£13,000 - -£3,000
	Rate of return	-	20% 20% 21%	- 20% - 20% - 23%	-		- - -	
<b>Level 2</b>	NPV Benefits	-	£28,000 £28,000 £28,000	- £36,000 - £36,000 - £36,000	£25,000 - £31,000		-£32,000 -£23,000 -£5,000	- -£24,000 - -£14,000 - -£5,000
	Rate of return	-	12% 12% 12%	- 13% - 13% - 13%	11% - 11%		- - -	
<b>Level 3</b>	NPV Benefits	-	£43,000	- £61,000	£57,000 - £81,000		£18,000	- £25,000
	Rate of return	-	15%	- 18%	16% - 18%		23%	- 28%

Note: '-' indicates that it was not possible to provide robust estimates of the NPV and IRR due to small sample sizes or the rate of return could not be calculated due to the stream of future earnings being negative for every possible value of the discount rate.

Source: London Economics' analysis

**Table 60: Exchequer rates of return associated with vocational qualification attainment (female)**

		RSA		City & Guilds		BTEC		NVQ	
		Range		Range		Range		Range	
Level 1	NPV Benefits	£11,000	- £16,000	-£10,000 -£10,000 -£1,000	- £6,000 - £6,000 - £1,000	-	-	-£13,000 -£12,000 -£3,000	- £9,000 - £7,000 - £3,000
	Rate of return	21%	- 30%	-	-	-	-	-	-
Level 2	NPV Benefits	£15,000 £16,000 £16,000	- £25,000 - £26,000 - £26,000	-£10,000 -£7,000 -£3,000	- £9,000 - £6,000 - £2,000	£5,000 £8,000 £9,000	- £13,000 - £16,000 - £17,000	-£17,000 -£16,000 -£5,000	- £13,000 - £11,000 - £4,000
	Rate of return	10% 11% 11%	- 14% - 15% - 15%	-	-	6% 7% 7%	- 8% - 9% - 9%	-	-
Level 3	NPV Benefits	£12,000	- £22,000	-£6,000 -£5,000 -£5,000	- £5,000 - £4,000 - £3,000	£8,000	- £17,000	£2,000	- £5,000
	Rate of return	8%	- 11%	-	-	7%	- 10%	6%	- 9%

Note: '-' indicates that it was not possible to provide robust estimates of the NPV and IRR due to small sample sizes or the rate of return could not be calculated due to the stream of future earnings being negative for every possible value of the discount rate.

Source: London Economics' analysis

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