



Government  
Office for Science

 Foresight

# **How can lifelong learning, including continuous training within the labour market, be enabled and who will pay for this? Looking forward to 2025 and 2040 how might this evolve?**

Future of an ageing population: evidence review

Foresight, Government Office for Science

# **How can lifelong learning, including continuous training within the labour market, be enabled and who will pay for this? Looking forward to 2025 and 2040 how might this evolve?**

**Dr Martin Hyde and Professor Chris Phillipson  
University of Manchester**

December 2014

This review has been commissioned as part of the UK government's Foresight Future of an Ageing Population project. The views expressed do not represent policy of any government or organisation.

# Contents

Executive summary.....	4
1. Introduction .....	6
2. What is lifelong learning? .....	6
3. What are the benefits of lifelong learning?.....	7
4. What proportion of older people are engaged in lifelong learning? .....	8
5. What are the trends in lifelong learning?.....	10
6. How much training do older people receive at work? .....	15
7. What are the barriers to lifelong learning? .....	19
8. How should lifelong learning be funded?.....	24
9. Conclusions.....	27
References.....	29

# Executive summary

## Background

There has been growing pressure to increase the skill levels across the UK economy to ensure that as the population ages people are able to remain both healthy and productive. Providing support and opportunities for people to continue learning and training throughout life will be critical to the success of current policies that emphasise extended or fuller working lives. Encouraging and supporting lifelong learning will be an important component in this process. Lifelong learning encompasses anything from everyday activities, such as reading a newspaper, to more demanding activities, such as studying for a degree. Three broad types of lifelong learning can be identified: formal learning, non-formal learning and informal learning, with the evidence indicating that people aged 50 and over are more likely to engage in the last two.

## What are the benefits of lifelong learning?

Studies have demonstrated that lifelong learning has positive outcomes for individuals, communities and the economy. On the individual level, participation in learning activities has been shown to improve life satisfaction, well-being and self-confidence. It is estimated that increasing the skills of the UK workforce could generate an additional £80 billion for the economy and improve the employability of older workers.

However, despite the well-established benefits of lifelong learning, those in later life are less likely to participate than those in other age groups. Data from the Higher Education Sector Association (HESA) for the 2012/13 academic year indicate that those aged 50+ comprise around 5% of the university student population. Data from the 2014 wave of *Understanding Society* (University of Essex, Institute for Social and Economic Research and NatCen Social Research, 2014) show similar patterns for adult education classes and work-related training, with those aged 50+ less likely to participate than those in younger age groups.

## What are the trends in lifelong learning?

Data from the National Adult Education Surveys from 1997 to 2010 show that there has been a rather sharp decline in rates of participation in learning activities for all age groups over the period from 2005 to 2010. However the rates are lowest and the fall is steepest for those aged 60–69 years. To examine what the rates of participation might be in 2015 and 2040 a series of projections were run based on these time-series data. The figures suggest that if the recent trend continues then rates of lifelong learning for those age 50+ could fall as low as 20% by 2040 for those aged 50–59 and potentially reach zero by 2025 for those aged 60–69. These projections were largely confirmed by additional analysis of data from the English Longitudinal Study of Ageing (ELSA) (Marmot *et al.*, 2015). In sum, they present a picture of falling rates of participation over the past decade and a future where only limited groups of older people (mostly those with existing qualifications) are engaged in learning activities.

## What are the barriers to lifelong learning?

There are three main types of barriers that might prevent someone from undertaking lifelong learning: attitudinal, situational and institutional. The evidence presented in the report from the 2014 wave of *Understanding Society* show that these often operate in concert. Older respondents reported that they were less likely to want work-related training but that they were also less likely to expect to be offered it. However, situational barriers such as financial and time constraints have been consistently shown to be the most important reasons why people do not

participate in learning and/or training later in life. The evidence in the report supports findings from other research that there are socio-economic inequalities in rates of participation. Those with higher levels of education, those with higher incomes and those in full-time work were more likely to participate in learning and training activities than those in more disadvantaged positions. Institutional factors, such as the availability of workplace training, also present important barriers. According to the *UK Commission's Employer Skills Survey 2013* (Winterbotham *et al.*, 2014), the majority of employers offered some form of training but the amount of training offered declined substantially over the period 2011 to 2013. This was equivalent to 2 million fewer training days being available for employees of all age groups.

### **How should lifelong learning be funded?**

Important issues relating to funding and payment are raised by the declining participation of people aged 50 and over in education and training. Research into the annual expenditure on adult learning highlighted an imbalance in the distribution of learning resources across the life course, with 86% of spending allocation to those aged under 25 years and minimal provision for those aged 50 and over. Resolving payment issues for lifelong learning is therefore critical given pressures to raise the skill level of those aged 50 plus but with a substantial proportion of this group receiving limited vocational training or related support. However, the question of how to fund any expansion raises difficulties given pressures to reduce public spending alongside financial constraints on companies and individuals. Individuals already shoulder much of the burden of funding their own learning, both in terms of direct expenditure and associated opportunity costs. Proposals to increase contributions for training/adult learning may be unrealistic – especially for those on low or middle incomes. Addressing payment issues is likely to involve action in three main areas: first, rebalancing spending on adult learning across the life course; second, developing a system of entitlements for adult learning; third, clarifying the responsibilities of government, employers, local authorities and individuals.

### **Conclusion**

Demographic, economic and social changes have made it increasingly necessary for people to continue to learn and develop their skills as they pass through life. The age in which education and learning were restricted to the early part of life is giving way to a new era of lifelong learning and continual development. Supporting such activities has been made even more pressing by moves to reverse early labour market exit and to extend working life towards the late 60s and potentially beyond. Set against these goals, the data presented in this report demonstrate falling participation rates in learning activities for older people, especially noticeable amongst those from poorer backgrounds and with lower educational attainment. Addressing the issue of developing a new approach and commitment to lifelong learning, relevant to the challenges of an ageing population, is now an urgent issue for public policy in the UK.

# 1. Introduction

This report examines trends in lifelong learning, with a particular focus on analysing future participation rates amongst adults aged 50 and over in the UK. Increased attention is now focused on raising skill levels amongst this group to meet the demands of an ageing population. By 2030, the number of people in England aged 60 and over will increase by 50%, and the number of people aged 85 and over will double. One response to demographic change has been the promotion of policies to support 'extended' or 'fuller' working lives (Department for Work and Pensions, 2014). Encouraging continuing education and training throughout the life course will be key to ensuring the success of this approach. This review considers how lifelong learning, including work-based training, can be enabled, what challenges are faced and how this could be financed.

## 2. What is lifelong learning?

There are many definitions of lifelong learning. In the UK the National Institute of Adult Community Education (NIACE) defines it as “practicing, studying or reading about something. It can also mean being taught, instructed or coached. This is so you can develop skills, knowledge, abilities or understanding.” Schuller and Watson (2009) state that it covers “people of all ages learning in a variety of contexts – in educational institutions, at work, at home and through leisure activities. It mainly focuses on adults returning to organised learning rather than on the initial period of education or on incidental learning”. The European Commission takes a somewhat broader definition that encompasses “...all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective” (Commission of the European Communities, 2001). However, in spite of the variety of definitions, most writers differentiate between three different forms of lifelong learning: **formal**, **non-formal** and **informal** (Bang, 2010; McNair, 2012):

- **Formal learning** refers to structured periods of learning with evaluative assessment that enables students to earn credit towards recognised awards and qualifications. This type of learning is generally delivered through further and/or higher education institutions.
- **Non-formal learning** covers structured periods of learning that may include formative assessment but which do not lead to the award of academic credit.
- **Informal learning** refers to loosely structured periods of learning which rarely include assessment and which do not lead to the award of academic credit.

It is also important to distinguish between the different settings in which lifelong learning takes place. According to Lifelong Learning UK (LLUK) (2007), the lifelong learning sector is made up of five constituent parts: (i) community learning and development (CLD), (ii) further education (FE), (iii) higher education (HE), (iv) libraries, archives and information services (LAIS), and (v) work-based learning (WBL). Although there is a good deal of overlap between these elements, each also contributes in a unique way to lifelong learning.

### 3. What are the benefits of lifelong learning?

Lifelong learning has been linked to a variety of benefits, for the individual, the economy and wider society (Field, 2009). Studies show that participation in learning has a positive impact on life satisfaction (Feinstein *et al.*, 2008a), optimism and subjective well-being (Moody, 2004; Hammond and Feinstein, 2006; Jenkins, 2009). Adult learners also report increased confidence (Dench and Regan, 2000; Schuller *et al.*, 2002, 2004; Preston and Hammond, 2003), mental stimulation (Feinstein *et al.*, 2008b; Withnall, 2010) and an improved sense of self-efficacy (Hammond and Feinstein, 2006; Richeson *et al.*, 2007; Formosa, 2013). Lifelong learning may also help people to develop the skills and knowledge to make informed choices about their lives, especially during periods of crisis and transition (Tuckett and McAuley, 2005).

Lifelong learning contributes not only to individual health but also to the health of the wider community. Active, healthy and well-informed older adults are less likely to place demands on family and community resources and services. At the same time, older people contribute to community well-being through their accumulated life experience, expertise and voluntary activities. Older people's participation in lifelong learning through cultural activities, such as volunteering at museums or visiting historical sites, can help keep treasured traditions such as heritage crafts alive for future generations to enjoy (Grut, 2013; Hansen and Zipsane, 2013).

The economic benefits of lifelong learning are also well established. The Leitch Review of Skills (Leitch, 2006) estimated that a reduction in the number of adults with skills below NVQ Level 1 by 2.4–2.7 million by 2020 could deliver a net benefit to the UK economy of £50–70 billion. In addition, educating a further 3.5 million adults to NVQ Level 2 (or equivalent) could produce an extra net benefit of £85–100 billion to the UK economy. Ultimately, the Leitch Review calculated that if the UK Government achieved the goals set out in the report it would generate an additional £80 billion for the economy over the next 30 years, alongside a 15% increase in productivity and a 10% increase in the employment rate.

Raising levels of lifelong learning are also viewed as central to promoting employability amongst older workers. In its 2006 report, *Live Longer, Work Longer*, the OECD concluded that weak employability was one of the major barriers to increasing employment rates of the over-50s (OECD, 2006). This was attributed to a lower rate of tertiary education and a lower participation in training for this age group. The report argued that improving access to, and provision of, training would help unemployed older workers return to employment and those in work to be more productive for longer periods. Longitudinal analysis from the USA (Leppel *et al.*, 2012) indicates that availability and quality of job-related training directly affects job satisfaction of older workers. However, analyses of the UK's 'Train to Gain' (TTG) programme suggests a more complex picture. Following the achievement of a TTG qualification employment goes up, benefits fall and earnings increase in the short term. However in the second year after training, benefit rates increased, and real earnings fell by around 4%. Overall the results suggest little improvement in the economic circumstances of TTG learners. This is instructive as TTG participants are older on average than those enrolled on other work-related training programmes, such as apprenticeships (Frontier Economics and the Institute for Fiscal Studies, 2011).

## 4. What proportion of older people are engaged in lifelong learning?

Surveys of adult learning show participation rates amongst those aged 50 and over to be substantially lower compared to other age groups (McNair, 2012). The picture in HE illustrates the limited engagement of older adults within formal education. Previous research in the UK showed that, in 2007/08, students aged 50+ were under-represented on full-time first-year undergraduate courses (Phillipson and Ogg, 2010); the picture was somewhat more positive for part-time students. The most recent data, covering the 2012/13 academic year, from the Higher Education Statistics Agency (HESA) (Table 1), reveal that the limited engagement of older people in HE remains unchanged: those aged 50+ make up just 3.5% of undergraduate and 6% of postgraduate students (full-time and part-time students combined) in UK HE institutes. Moreover there has been a 17.9% fall in the number of adult students participating in Level 3 courses between 2012/13 and 2013/14 (Skills Funding Agency, 2015).

**Table 1: The number and percentage of students studying at a UK HE provider by age group and level of study in 2012/13**

Age	Undergraduate N	Undergraduate %		Postgraduate N	Postgraduate %
17 and under	16,110	0.89		35	0.01
18–21	1,078,170	59.77		28,005	5.22
22–39	534,155	29.61		405,030	75.50
40–49	111,060	6.16		70,790	13.20
50–59	43,165	2.39		27,280	5.09
60–69	16,280	0.90		4610	0.86
70 and over	4395	0.24		580	0.11
Age unknown	505	0.03		110	0.02
<b>Total</b>	<b>1,803,840</b>	<b>100</b>		<b>536,440</b>	<b>100</b>

Source: HESA

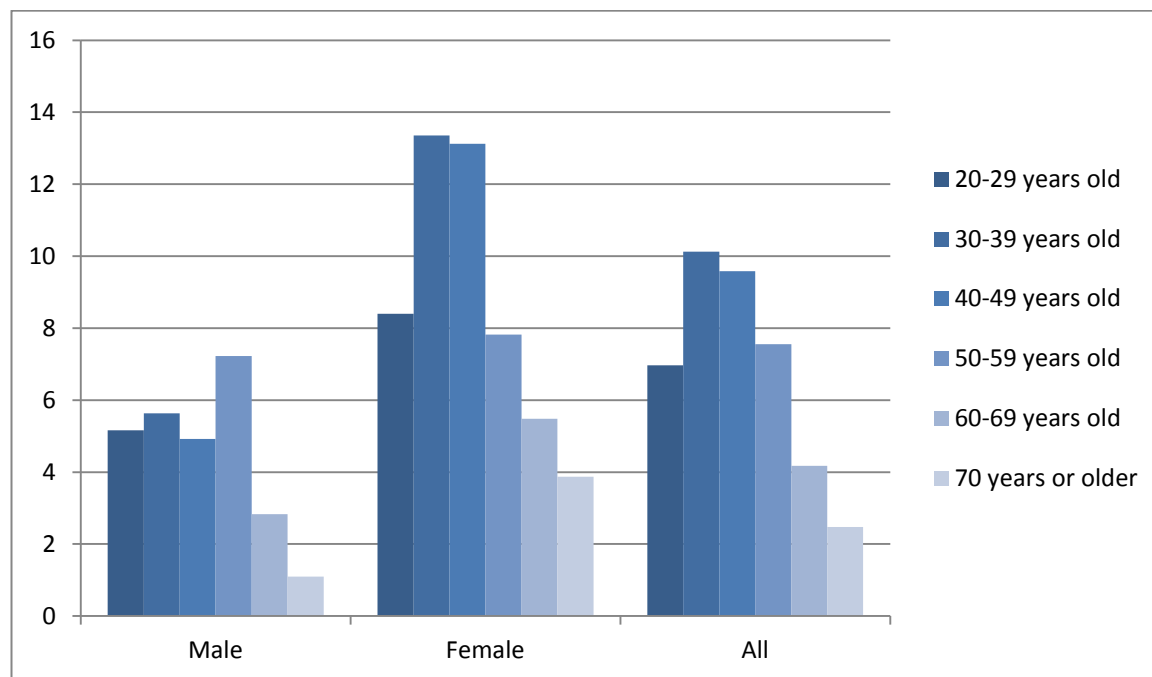
However, as noted above, participation in formal HE courses is only one aspect of lifelong learning. Outside of the HE sector there are a number of other providers of lifelong learning and training, such as the Workers' Educational Association (WEA) and the University of the Third Age (U3A). In 2012/13, the WEA taught over 9,700 courses for more than 70,000 adult students from across England and Scotland (Workers' Educational Association, 2014). The U3A has a membership of around 344,000 spread across 959 branches in the UK (2015 figures).

Analyses of both the English Longitudinal Study of Ageing (ELSA) and the National Child Development Study (NCDS) confirm that older learners are much more likely to participate in non-formal or informal learning activities (Duckworth and Cara, 2012; Jenkins and Mostafa, 2012). Data from the 2014 wave of the *Understanding Society* survey were used to explore any age group differences in participation in adult educational classes, which may be more likely to



represent non-formal learning. The results, presented in Figure 1, show that for both sexes, those aged 60+ are much less likely to use adult education classes, but amongst men those aged 50–59 are the most likely to use such classes. However, it is important to note that smaller proportions of men of any age group are involved in adult education.

**Figure 1: Proportion of men and women reported using adult education classes in the past 12 months by age group**

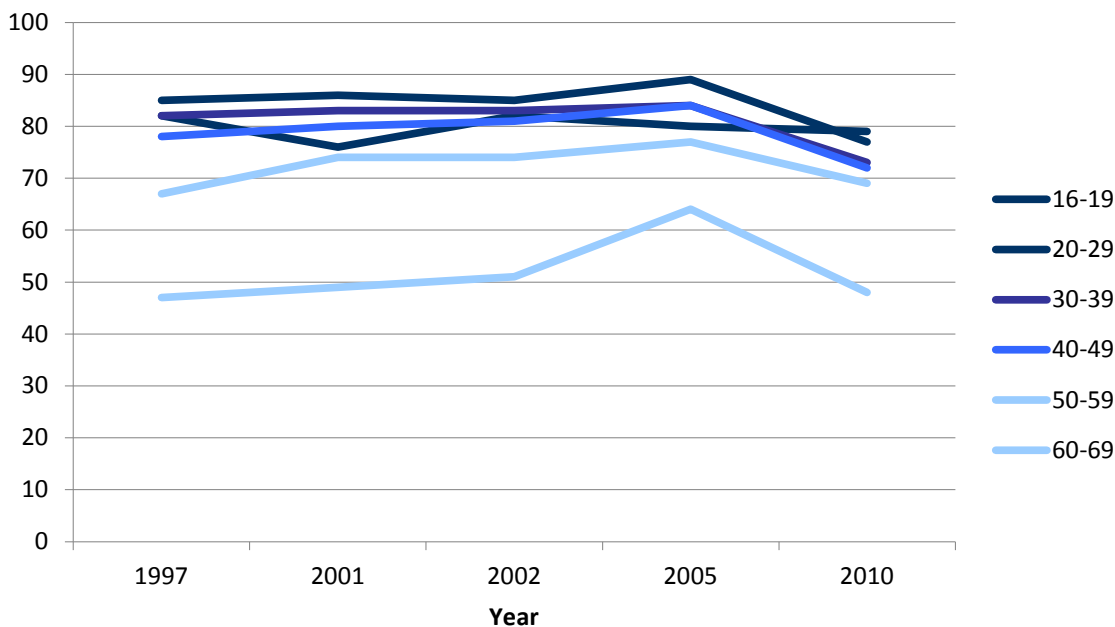


Source: *Understanding Society Wave 4*.

## 5. What are the trends in lifelong learning?

Over the past few years there has been a decline both in the rates of participation in adult learning and the proportions of people who say they are planning to undertake learning activities in the future (McNair, 2012). Data from the National Adult Learner Surveys (NALS) provide a clear picture of these trends. Findings are summarised below for 1997, 2001, 2002, 2005 and 2010. The survey is designed to capture a wide range of learning experiences and employs a broad definition of learning. NALS measures adult participation in learning in the 3 years prior to each survey. This measure encompasses formal, non-formal and informal learning. As Figure 2 shows, participation rates for all age groups rose between 1997 and 2005. However, between 2005 and 2010 they fell for all but the 16–19 age group. The decline has been most noticeable amongst those aged 60+, and has brought their participation rate back to pre-2005 levels.

**Figure 2: Percentage of people who report doing some learning from 1997 to 2010 by age group in the UK**



Source: McNair, 2012.

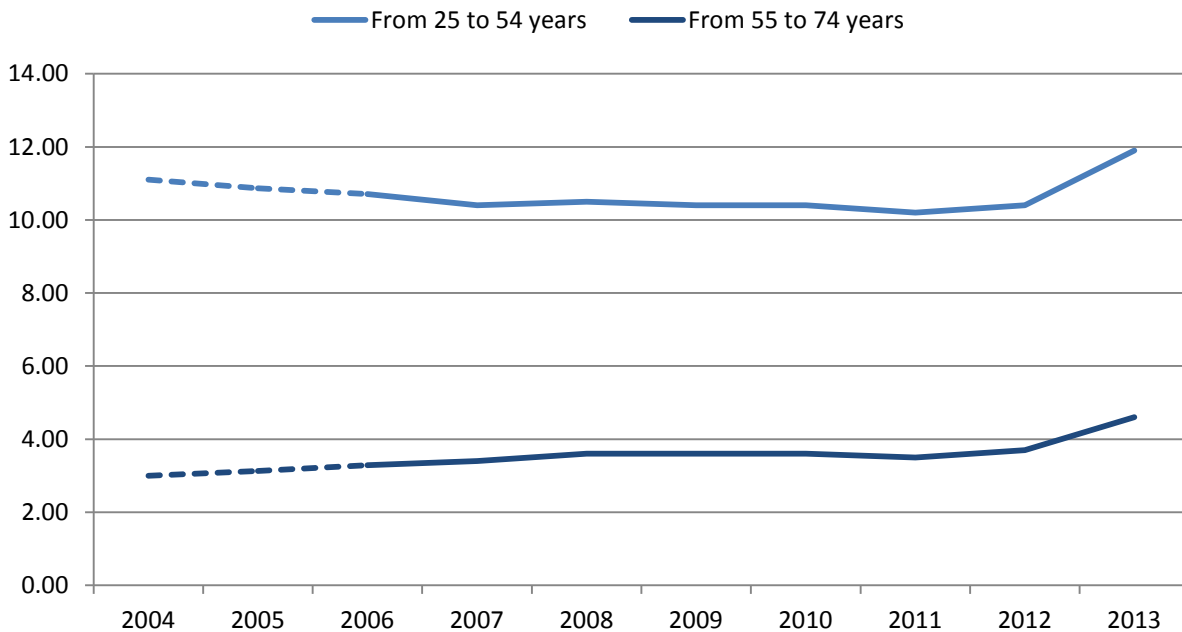
While these data refer to all learning activities, the authors of the report note that the trends differ by type of learning. The most significant decline has been in participation in non-formal learning, which fell from 56% in 2005 to 39% in 2010. Participation in informal learning declined from 56% in 2005 to 43% in 2010. However, participation in formal learning remained unchanged between 2005 and 2010, at 24%. A number of possible explanations are put forward for the decline:

- The economic downturn since 2008. This has affected the willingness of individuals to spend money on learning. In 2010, 58% of respondents cited cost as an obstacle to learning, compared with 21% in 2005.
- A reduction in funding for many short courses in favour of longer, qualification-led learning in response to the Leitch Review of Skills.

- A decline in employer funding for on-the-job training.
- A reduction in participation in ICT skills training, which was a strong driver of learning participation in previous years, as more of the adult population have developed basic ICT skills.

Trends for the EU overall suggest a contrasting picture to the above. Eurostat data (Figure 3) on the proportion of adults engaged in some form of learning or training over the past 4 weeks show a slow but steady rise amongst the 55–75 age group from 2004 to 2010 and a marked increase from 2012. For those aged 25–54, the trend is more U-shaped, but there is evidence of a similar rise from 2012 onwards. Although it is not possible to directly compare the levels of participation, as the measure is different in NALS and Eurostat, the different trends over time suggest that the decline in adult learning may not be universal across the EU.

**Figure 3: Participation rate in education and training in the last 4 weeks in the EU (28 countries).**

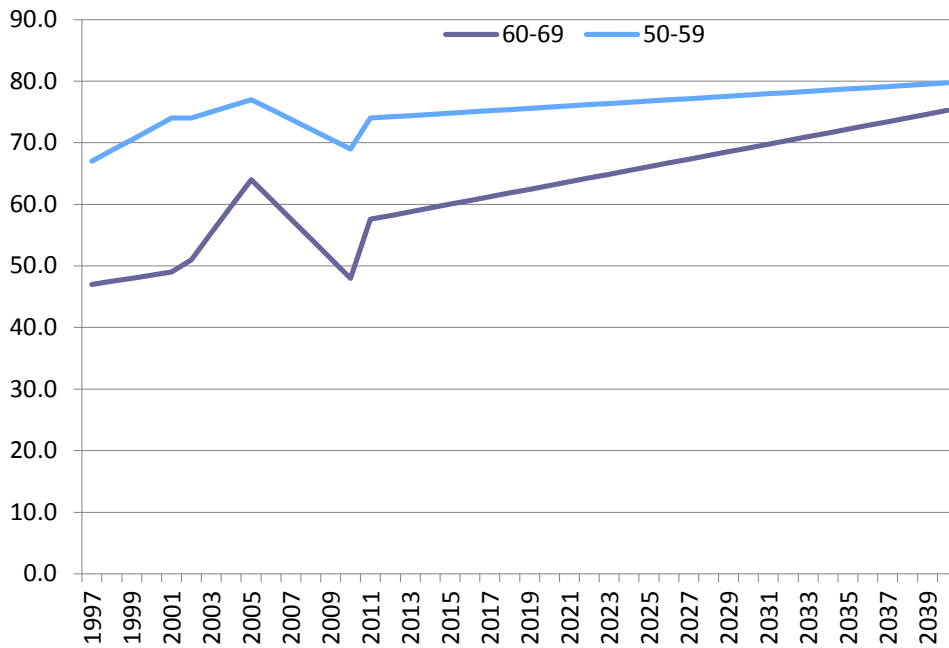


Source: Eurostat (2014).

Note: The dotted lines represent inputted figures as data were not collected in 2005 and 2006.

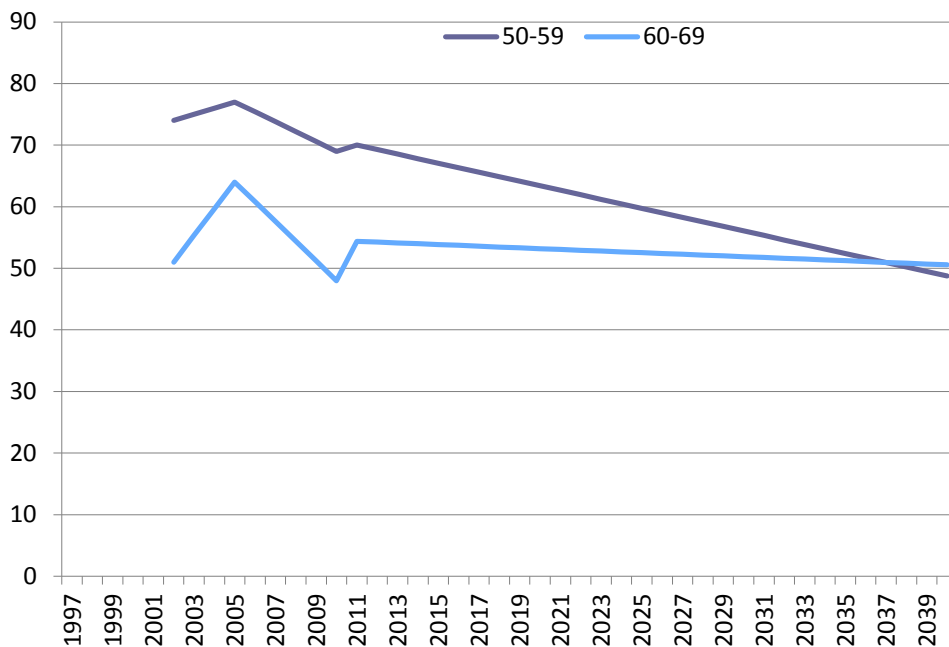
Turning to future trends in the UK, three future scenarios have been modelled for those aged 50–59 and 60–69, based on NALS data from 1997 to 2010. These projections reflect the different trends identifiable in the NALS time series. Overall, the data show a slow but steady increase in participation rates from 1997 to 2010. However, this masks a period of rapid increase from 2002 to 2005 and the subsequent decline from 2005 to 2010. By modelling three different scenarios we are able to show what the effect would be if each of these trends continued. Thus the first scenario is based on the trend from 1997 to 2010, the second scenario projects forward from 2002, and the final scenario is based on the most recent trend from 2005 to 2010. These are presented in Figures 4 to 6.

**Figure 4: Projections for participation in learning for those aged 50–59 and 60–69 based on the trend from 1997 to 2010**



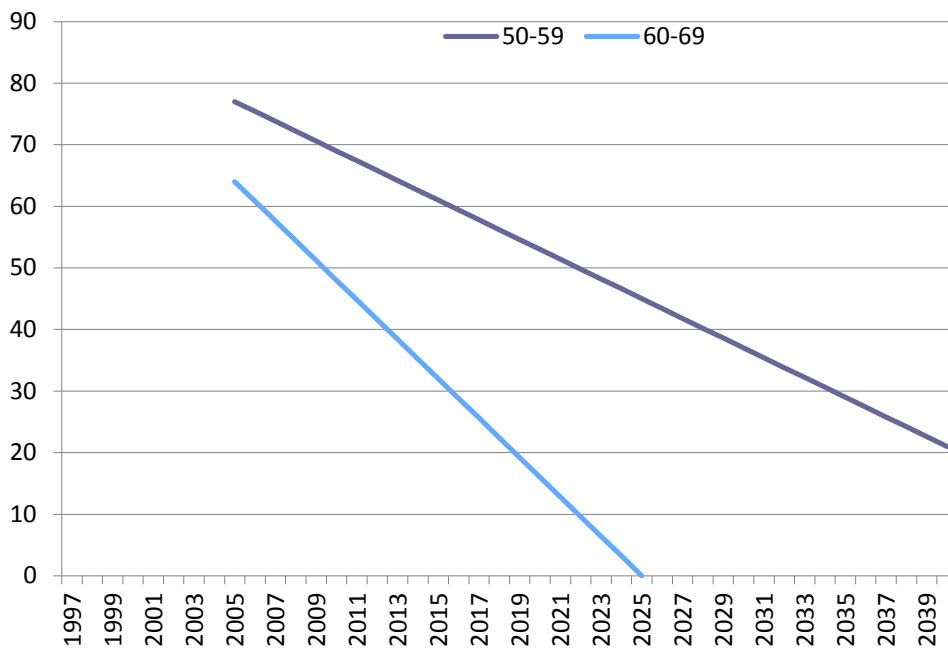
Source: McNair (2012); author's calculations.

**Figure 5: Projections for participation in learning for those aged 50–59 and 60–69 based on the trend from 2002 to 2010**



Source: McNair (2012); author's calculations.

**Figure 6: Projections for participation in learning for those aged 50–59 and 60–69 based on the trend from 2005 to 2010**



Source: McNair (2012); author's calculations.

The above scenarios represent alternative possibilities for future trends in participation in lifelong learning in later life. As Figure 4 shows, if the trend in rates of participation return to pre-2005 levels then there will be an upswing in learning in later life. Thus, if the decline in participation is due to the effects of the economic crisis then a return to greater economic security could reverse this downward trend. However, if recent trends are not reversed then, as Figure 6 suggests, rates of participation will continue to fall and could potentially reach zero by 2025 for the 60–69 age group.

Further analysis of trends in participation in learning was provided through examining data from the first five waves of ELSA (2002 to 2010) (Figures 7 and 8). Given the shorter period of time covered by ELSA only one set of forecasts was performed, projecting forward from the trend between 2002 and 2010. In each wave respondents were asked whether they had attended a formal educational course in the last 12 months and whether they were a member of an education, arts or music group or evening class. The first of these can be seen to represent formal learning; the latter are more likely to capture non-formal learning activities. Separate analyses were performed for those aged 50–59, 60–69 and 70 years and over. The trends in participation in both types of learning activity generally correspond to those in the NALS survey, indicating a decline in participation amongst all age groups between 2006 and 2008. However, this levelled off by 2010 and has even begun to rise again for the 60–69 age group. Projecting forward from these data, participation rates amongst the 50–59 and 70+ groups will continue to fall but will remain fairly constant for those in the 60–69 age group.



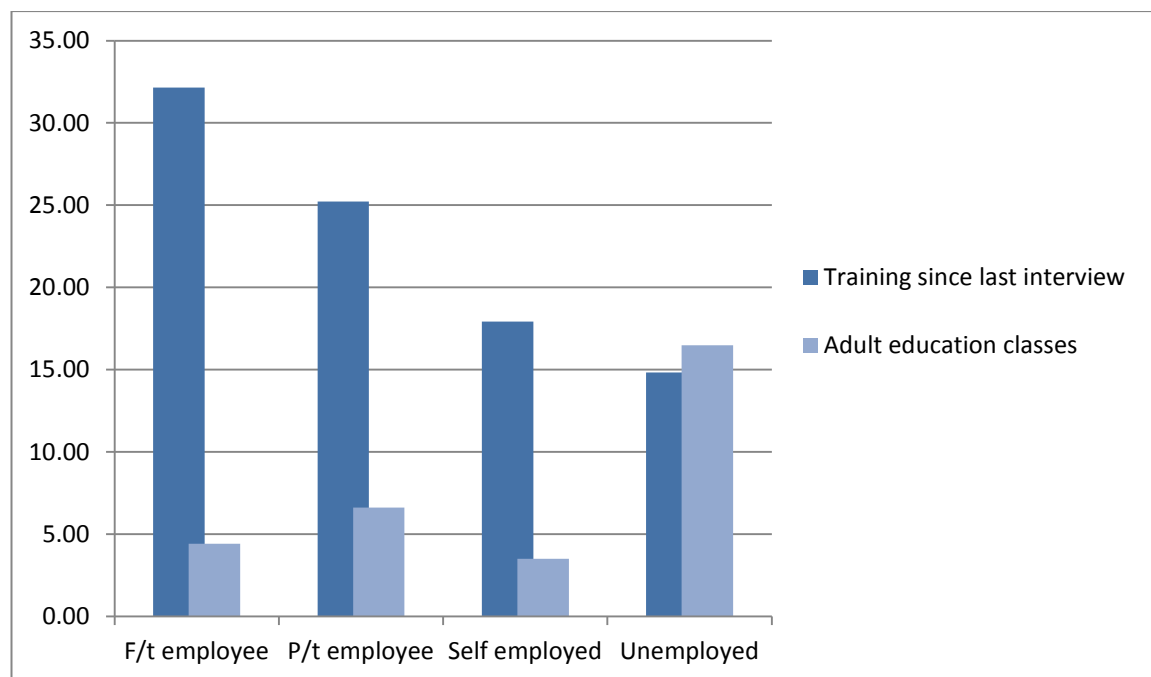






Furthermore, according to ELSA data (Figure 12), those who worked as employees had higher rates of participation in formal educational activities than those in other labour market positions, such as the self-employed. However the differences between those who are employed on permanent and on temporary contracts are small. The picture is somewhat different for membership of educational groups or classes where those in permanent employment were amongst the least likely to report being in such groups, while the self-employed had the second highest rate.

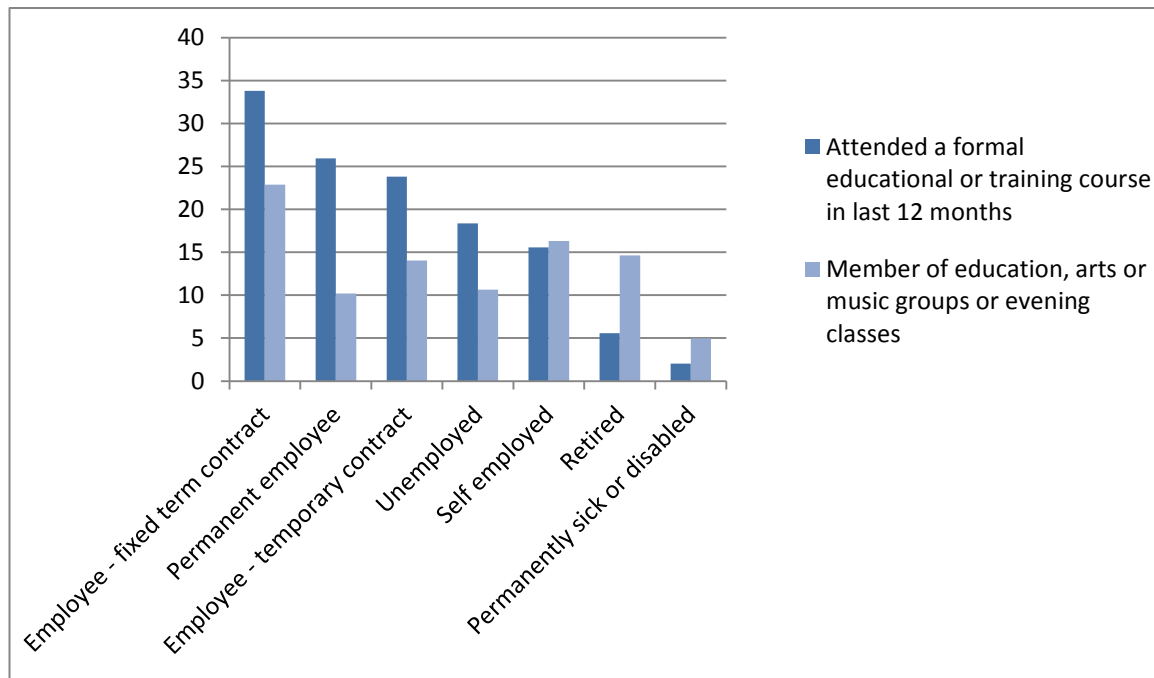
**Figure 11: Proportions of those aged 50 and over who received any training or used adult education classes by employment type**



Source: Understanding Society Wave 4.

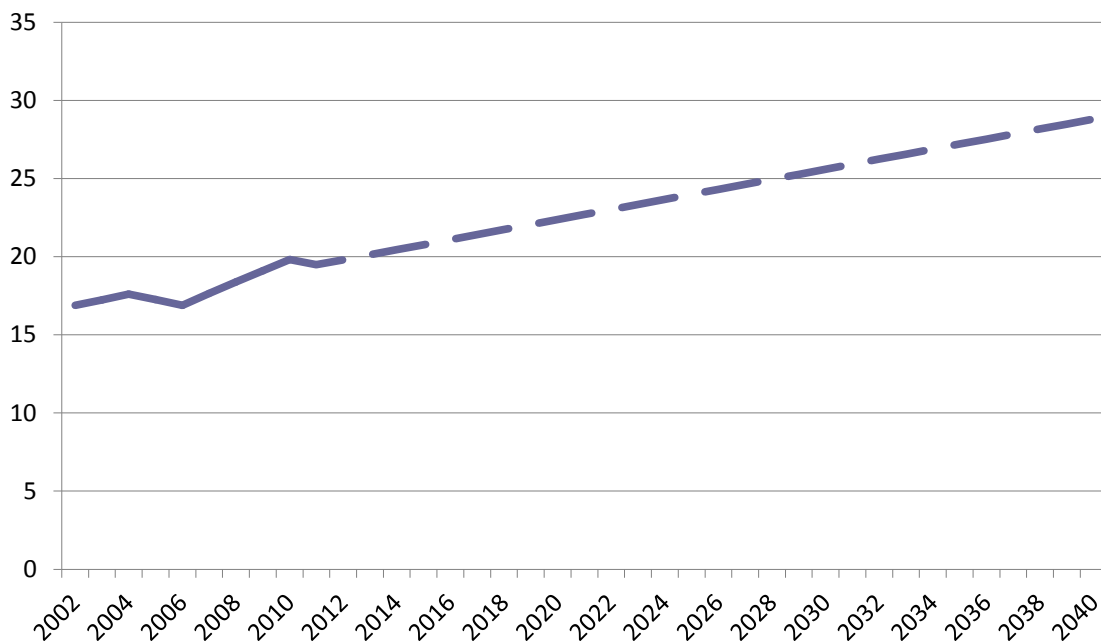
Thus the type of work that older workers do is likely to have a considerable impact on opportunities for lifelong learning. There is already a significant move towards self-employment in later life (Office for National Statistics, 2014). Around 1 in 5 of those in work aged 50+ are self-employed, which is higher than other age groups (Vojak, 2013). Projections based on the ELSA data (Figure 13) show that this is likely to increase over the coming decades. Hence if the current low rates of participation in learning amongst the self-employed do not change then increasing self-employment in later life is likely to have a negative impact on lifelong learning.

**Figure 12: Proportion of those aged 50 and over who have engaged in learning activities by labour market position**



Source: ELSA Wave 5.

**Figure 13: Proportion of those aged 50 and over and in work who are self-employed 2002–2040**



Source: ELSA Waves 1–5; author's calculations.

## 7. What are the barriers to lifelong learning?

Research has identified three main types of barriers to lifelong learning faced by older people: attitudinal, situational and institutional (Cross, 1981). These can be defined as:

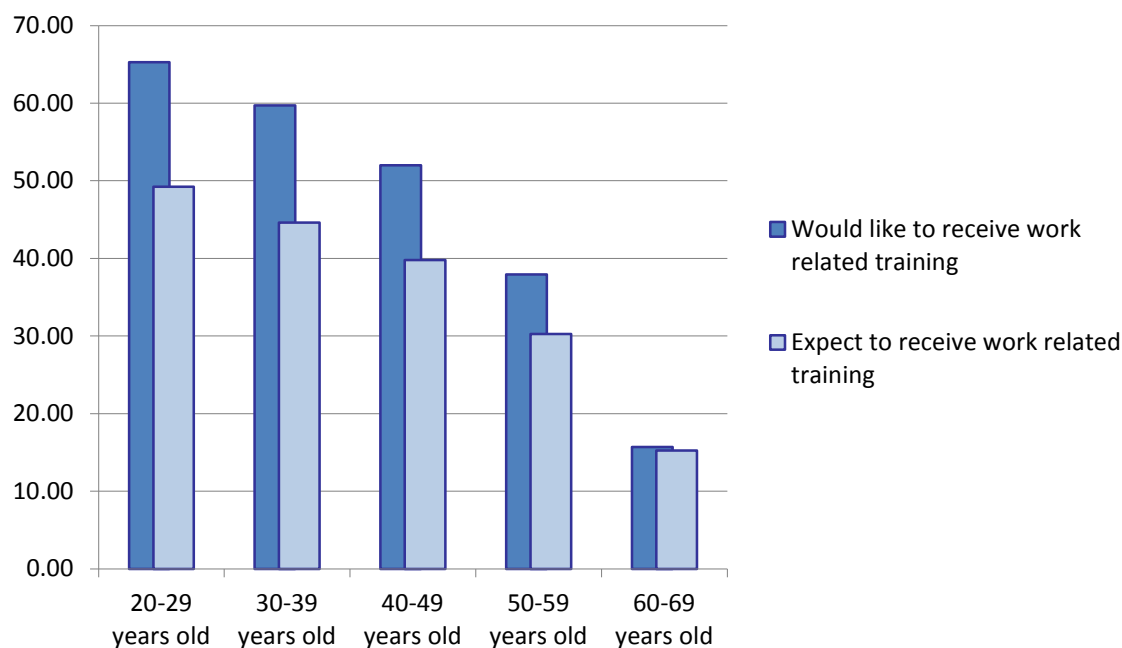
1. **Attitudinal barriers** reflect (negative) perceptions, by older learners as well as providers, about their lack of ability, motivation and interest in gaining new knowledge.
2. **Situational barriers** refer to personal factors beyond the control of the learner, such as poor health, caring responsibilities and shortage of time and money.
3. **Institutional barriers** encompass organisational practices that discourage people from participation in learning and can include inflexible course schedules, campus accessibility, complex enrolment procedures, and lack of information about programmes for older learners.

While this is a useful classification, it is important to note that these are not mutually exclusive or hierarchical and certain groups of older people might face multiple barriers at different points in time.

On the broad issue of age discrimination, a Eurobarometer report on *Discrimination in the EU in 2012* found that the proportion of respondents reporting age discrimination as “quite rare” had fallen from 52% in 2008 to 37% in 2012, with 58% now regarding it as “widespread” (European Commission, 2012). Several studies have found that ageist stereotypes are one of the principal barriers to the provision of equal access to training in the workplace for older workers (Taylor and Unwin, 2001; Gray and McGregor, 2003). This is reflected in the low rates of older workers who are offered training. Thus, although Humphrey and colleagues found that most employees received some encouragement to learn more job-related skills, workers aged 50 years and older were less likely to be considered for training (Humphrey *et al.*, 2003).

Negative attitudes amongst older people themselves can also be a barrier to learning. Studies have shown that older employees may be reluctant to engage in workplace training (Taylor and Unwin, 2001; Newton, 2006; McNair *et al.*, 2007; Smeaton and Vegeris, 2009). A 2009 NIACE survey (Aldridge and Tuckett, 2009) showed that people’s intentions to participate in learning decline as they get older and Pollard and colleagues found that 84% of older people said that they were “not interested or unlikely to consider” taking a HE course (Pollard *et al.*, 2008). In both these studies, the main reason respondents gave for not engaging in training or education was their perception that they were too old to learn. Evidence from *Understanding Society* suggests that both forms of attitudinal barriers are at work. As Figure 14 shows, older people are much less likely to want to receive work-related training and much less likely to expect to receive it.

**Figure 14: Proportion of people who said they would like to receive work-related training and who expect to receive work-related training by age group**

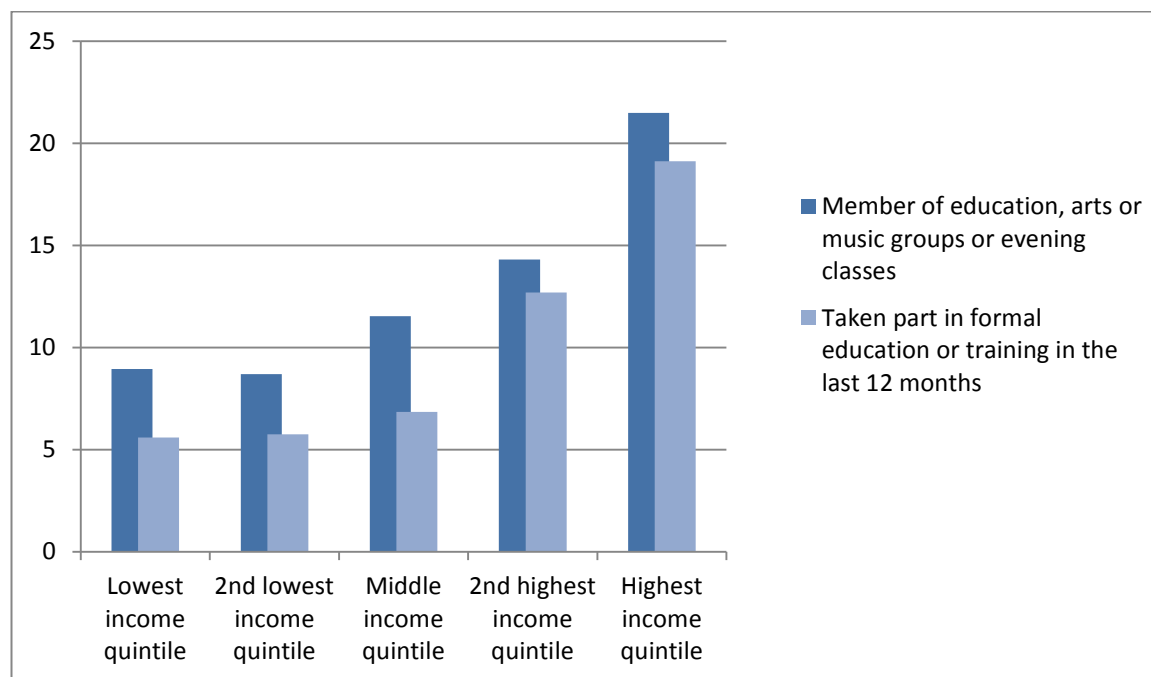


Source: Understanding Society Wave 4.

Situational barriers also have an impact on whether people participate in lifelong learning activities. According to the NALS 2010 data, over half of the respondents cited cost as a major issue, followed by a lack of time (42%), being unable to fit learning around jobs (29%) and family constraints (25%) (McNair, 2012). Socio-economic position is also a key factor. Studies show that the extent and type of previous education are the most important predictors of participating in learning later in life (Aldridge and Tuckett, 2009). Similarly, other studies have shown that those from higher social classes are much more likely to participate in both formal (Jenkins, 2011; Jamieson, 2012) and non-formal/informal learning (Formosa, 2012). High costs and/or limited finances also present barriers to learning and HE courses (DiSilvestro, 2013). Time pressure, particularly for those who have caring responsibilities, has also been identified as a major constraint on lifelong learning (Schuller and Watson, 2009; McNair, 2012). The type of job an individual has can have a significant impact on undertaking education and training (Findlay *et al.*, 2012; McQuaid *et al.*, 2012). Those with low skills often lack confidence and require support to engage in learning (Weedon and Tett, 2013). Keep and James (2012) argue that higher status and higher-paid employment, which often require substantial education and training, generate strong and mutually reinforcing incentives to learn. By contrast, low-paid employment is often repetitive, offers less pleasant working conditions, and holds limited discretion and intrinsic interest. Hence it provides weaker incentives for further training and fewer opportunities for progression. They identify six obstacles to incentivising those in lower skill/lower pay jobs from participating in education and/or training: (i) weak occupational identities and limited skill requirements; (ii) narrow conceptualisations of vocational skill and learning; (iii) competence-based vocational qualifications; (iv) weak and limited labour market regulation; (v) recruitment, selection and the wage effects of vocational qualifications, and (vi) limited opportunities for progression. While their analyses took in all age groups it is probable that these factors, individually or in combination, are likely to be compounded for older workers in low-skilled jobs who also face negative age stereotypes.

Figure 15 shows the proportion of those aged 50 years and over in each income quintile who have taken a formal education or training course in the last 12 months or who are members of an educational group or class. The data show a fairly clear income gradient in the proportions who engage in either form of learning activity with those with the most income over twice as likely as those in the lowest income group to participate.

**Figure 15: The proportion of those aged 50 and over who participate in learning activities by income quartile**



Source: ELSA Waves 1–5; author's calculations.

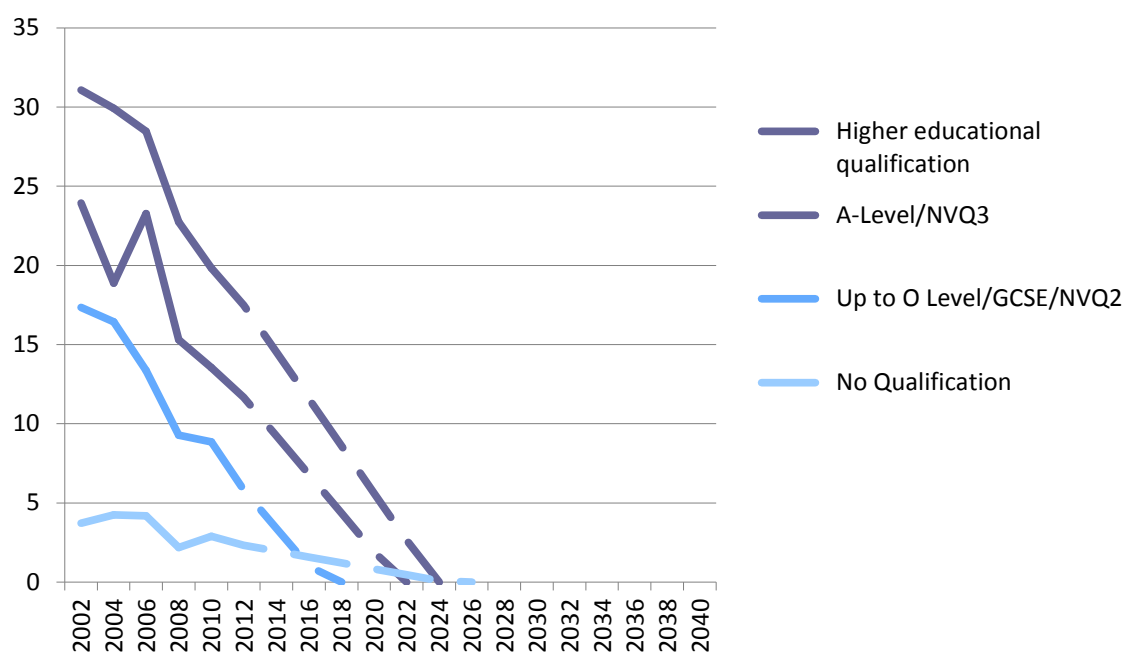
Figures 16 and 17 show the rates of participation in learning activities for those aged 50 and over by highest level of educational qualification from 2002 to 2010 and projected forward to 2040. The data show clear educational inequalities in the rates of participation in both formal and non-formal lifelong learning. However, rates are falling for all educational groups. If current trends continue, rates of participation, even for those with high levels of education, could reach extremely low levels over the coming decades.

However, these estimates are based on projections of the current levels of education. As greater proportions of older people acquire basic ICT skills it is possible that future generations of older people will be more willing and capable of undertaking distance learning. At the same time, it is important to be aware that the success of e-learning rests on more than technological proficiency and access but is affected by a complex host of factors, such as time constraints, family arrangements and having space to study (Kahu *et al.*, 2014).

It is important not to overlook institutional barriers that might impact on lifelong learning. Here, there are four interconnected challenges facing the skills and learning sector: (i) institutional change, (ii) public sector cuts, (iii) spatial mismatch and demand and delivery, and (iv) workforce ageing. The skills and learning sector is currently undergoing a number of organisational and financial upheavals. As part of a wider set of public sector reforms there is a move away from central control towards greater flexibility and more local delivery. Learning and skills policy nationally, regionally and locally is becoming more complex due to new partnerships

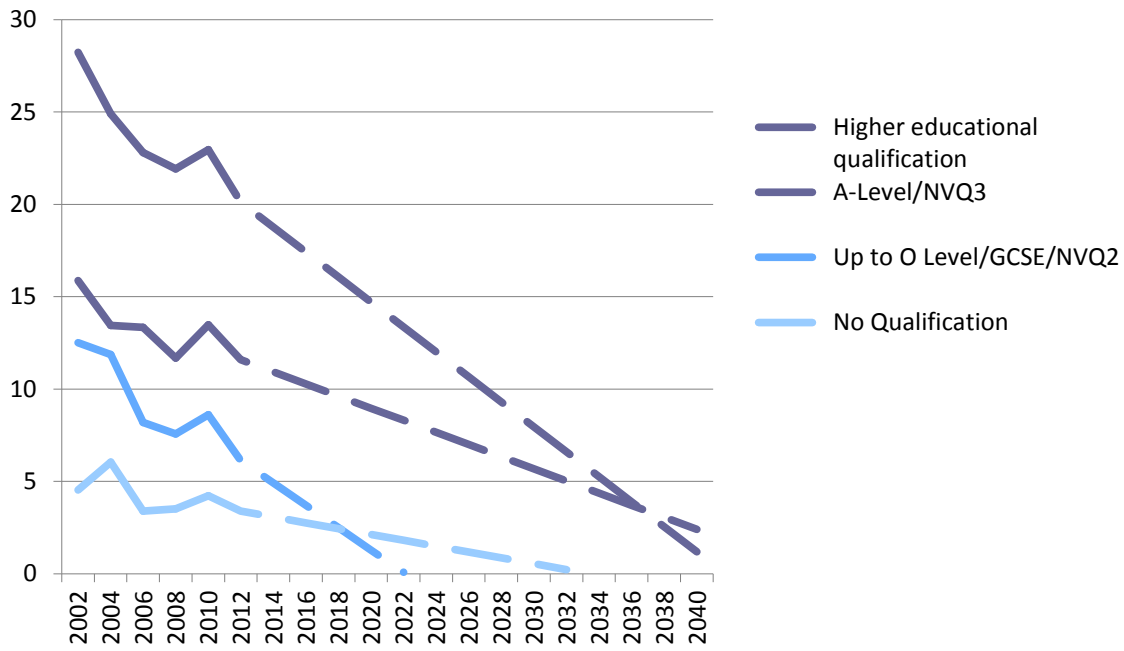
and entrepreneurial ventures between a wider range of stakeholders. A second factor is that this organisational change is taking place in an environment of reduced public spending, with particular pressures on courses aimed at older learners in the FE sector (Budderly *et al.*, 2011). Funding for adult education is expected to decline by 24% for the 2015/16 academic year. According to the Association of Colleges (2015) this will result in a loss of 190,000 adult learning places over this 12-month period. A third issue is the spatial mismatch in the demand and supply of skills. The demand for high-level skills within 'knowledge-based' service sectors, such as financial and insurance activities, is much lower in some places (such as the North East) than it is in others (London). This unevenness means that providers of skills training, especially WBL, are more likely to be concentrated in these more knowledge-based employment locations (Wright *et al.*, 2010). Finally, the skills and learning sector workforce is facing challenges. The workforce is ageing, with 26% of employees aged 55 years and older, and experiencing both staff and skills shortages. Around a quarter of employers in the skills sector report having vacancies, which is twice as high as the economy as a whole. There are also skills gaps in the sector, with 19% of learning and skills sector employers reporting skills gaps compared to 13% across all sectors in England (Learning and Skills Improvement Service (LSIS), 2013).

**Figure 16: Proportion of those who report taking part in formal education or training in the last 12 months by highest educational qualification**



Source: ELSA waves 1–5; author's calculations.

**Figure 17: Proportion of those who report being a member of an education, arts or music group or evening classes by highest educational qualification**



Source: ELSA waves 1–5; author's calculations.

## 8. How should lifelong learning be funded?

Important issues relating to funding and payment are raised by the declining participation of people 50 and over in education and training. Expanding access to learning in all forms is an essential part of the policy of extending working lives. This section of the report examines firstly, expenditure and opportunity costs in relation to lifelong learning; secondly, issues relating to payment for adult learning; and thirdly, future priorities for expenditure.

On the first of the above questions, Williams *et al.* (2010) have calculated annual expenditure on adult learning to be approximately £55 billion (2007/08 figures), amounting to around 3.9% of GDP. The authors also examined the opportunity costs associated with the time and effort put into learning by organisations and individuals. This produced an additional £38.8 billion, bringing overall expenditure to £93 billion. Figure 18 illustrates the breakdown of contributions to expenditure and opportunity costs associated with adult learning for different providers. The data suggest that public expenditure and that by private employers makes up the greatest share of spending on adult learning, accounting for £25.5 billion and £16.2 billion, respectively. The contribution made by individuals, around £9.4 billion, is dwarfed by opportunity costs, with individuals spending around £28.3 billion, compared to around £4.5–4.6 billion from public and private employers. Overall, individual expenditure accounts for 40% of the total costs of adult learning provision followed by public expenditure (32%) and expenditure by private employers (22%).

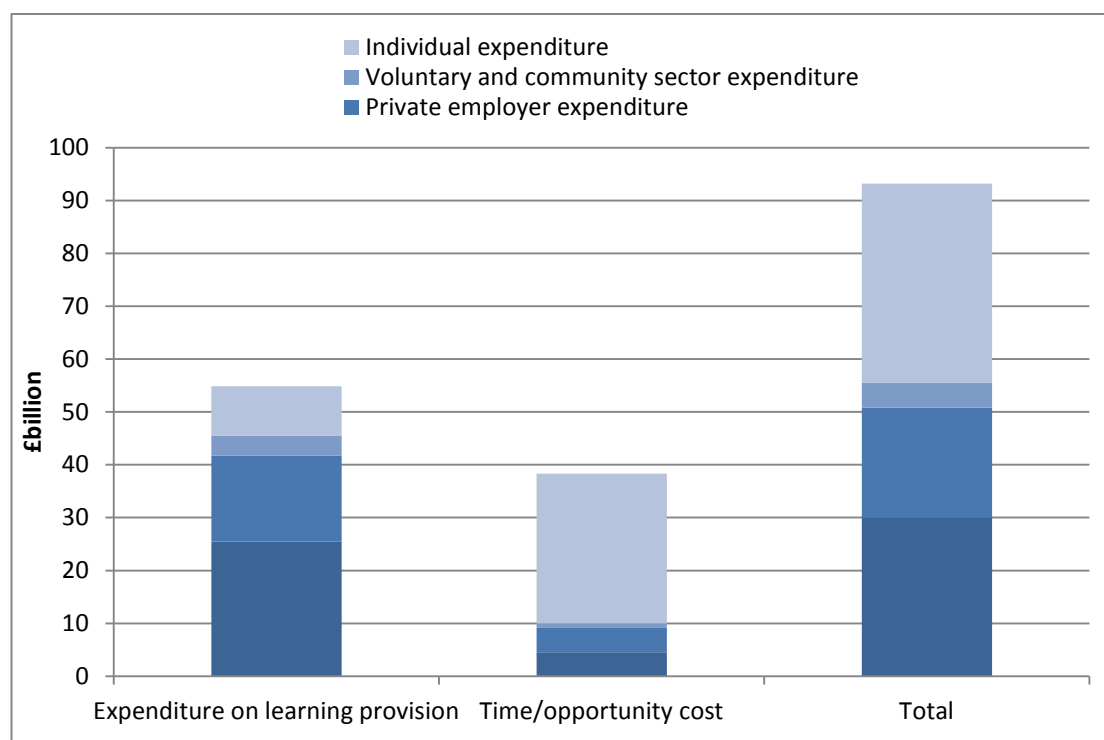
Williams *et al.* (2010) highlighted the imbalance in the distribution of learning resources across the life course, noting that: “The large majority of public spending is spent on young people under 25, and almost no resource is spent on the needs of people in the last half of their adult life (from 50 onwards) within or outside the labour market.” In their analyses of the funding structure of adult learning, they estimated that 65% (£9.75 billion) of total public expenditure on post-compulsory education was spent on HE, three-quarters of which went to learners under 25. Table 2 shows the expenditure on formal and informal learning for four different age groups.

Table 2 demonstrates that funding is heavily weighted towards those in the younger age groups. Eighty-six per cent of the total expenditure is spent on those aged 18–25, with those aged 50 and over receiving just 3%. Thus the amount spent on each learner aged 18–25 is 38 times greater than for those aged 50–74 and the amount spent per capita is 93 times greater.

Resolving payment issues for lifelong learning are therefore critical, given pressures to raise the skill level of those aged 50 plus, but with substantial proportions receiving limited vocational training or related support. However, the question of how to fund any expansion raises difficulties, given pressures to reduce public spending alongside financial constraints on companies and individuals. Individuals already shoulder much of the burden of funding their own learning, both in terms of direct expenditure and associated opportunity costs. Proposals to increase contributions for training/adult learning may be unrealistic – especially for those on low or middle incomes. The NALS found that 58% of respondents (all ages) viewed ‘cost’ as a potential obstacle to learning. Moreover the analyses showed that although moderate fees of up to £200 do not seem to impact on learning, an increase in fees to £2,000 would have a significant impact on willingness to undertake learning. By contrast, an increase in time commitment per week from a few hours a day to 2 days a week would have a significant impact on people’s decisions (McNair, 2012).



**Figure 18: Contribution to expenditure and opportunity costs of adult learning provision by provider, 2007–08**



Source: Williams et al., 2010.

**Table 2: Expenditure on formal and informal learning across the four life stages, 2008**

	18–24	25–49	50–74	75+
<b>Total expenditure (£m)</b>	£47,141	£6057	£1397	£285
<b>Percentage of total expenditure</b>	86.0%	11.0%	2.5%	0.5%
<b>Expenditure per head of population</b>	£8045	£283	£86	£60
<b>Expenditure per learner</b>	£12,395	£633	£319	£542

Source: Williams et al. (2010).

Addressing payment issues is likely to involve action in three main areas: first, rebalancing spending on adult learning across the life course; second, developing a system of entitlements for adult learning; third, clarifying the responsibilities of government, employers, local authorities and individuals. Proposals for each of these areas were set out by Schuller and Watson (2009) in the final report of the *Inquiry into the Future for Lifelong Learning*. Their main suggestions were:

- For a public debate on the criteria for fair and effective allocation of resources for learning across the life course, with an approximate doubling in the proportionate support for learning in the third and fourth ages.
- That the ‘third age’ (50–74) should be viewed as a central period for encouraging enhanced training and education opportunities, based upon a more even distribution of work across the life course.
- That there should be ‘entitlements to learning’ with: (a) a legal entitlement of free access to learning to acquire basic skills; (b) a ‘good practice’ entitlement to learning leave as an occupational benefit; (c) specific ‘transition entitlements’, e.g. for people on their 50th birthday, to ‘signal the continuing potential for learning of those moving into the third age’.
- That the roles of the various stakeholders – from government to individuals – required clarification if progress was to be made in redistributing learning towards older people.

Given a context of declining participation, setting priorities for adult learning will be vital. McNair’s survey found over 40% of those 55–64 had done no learning since leaving school; 61% of those 50–54 had no plans to learn over the next 3 years (McNair, 2012). These figures – alongside the limited availability of training for those 50 and over – suggest that a major initiative is required to deliver new skills to those entering their 50s with the prospect of another 15 or 20 years in the labour market. Many in this group will be in part-time and self-employment – areas where training and lifelong learning tend to be underdeveloped. The issues here have been summarised by Czaja and Sharit (2009) as follows:

“...as the number of workers in non-standard work arrangements...continues to increase, one important issue confronting workers will be access to traditional workplace benefits such as training. [Such] workers will be less likely to receive structured company-sponsored training and the responsibility of continuous learning and job training will fall to a greater extent on the individual. It is not yet clear how to best develop and disseminate training programs to promote lifelong learning for these ‘non-traditional’ workers. This issue is especially pertinent for older workers, given that they are less likely to be provided with access to training and development programmes in traditional work environments where company-sponsored training is available.”

The development of ‘career reviews’ for older job seekers, following the mid-life career review project undertaken by NIACE, is a step in the right direction (Department for Work and Pensions, 2014). These will offer any necessary training alongside assistance with identifying transferable skills from previous careers. Moreover, employers need to give greater recognition to the increased importance of ‘independent learning’, given evidence of a substantial increase in the number of those learning at home. McNair (2012) cites figures that 21% of people over 55 said that they were ‘learning at home’; in 2012, 38% of those aged 50% said that they were learning ‘independently’. The key factors here include: the influence of information technology and personal computers, the rise of flexible and self-employment, and the limited availability of appropriate adult learning in FE and other venues.

## 9. Conclusions

Demographic, economic and social changes have made it increasingly necessary for people to continue to learn and develop their skills as they pass through life. The age in which education and learning were restricted to the early part of life is giving way to a new era of lifelong learning and continual development. Supporting such activities has been made even more pressing by moves to reverse early labour market exit and to extend working life towards the late 60s and even beyond. Set against these goals, the data presented here and elsewhere demonstrate falling participation rates in learning activities for older people, especially noticeable amongst those from poorer backgrounds and with lower educational attainment.

The data reviewed suggests that lifelong learning in the UK is characterised by inequalities between and within age groups. Whether one looks at the rates of participation in formal learning, as shown by the recent HESA figures in Table 1, or non-formal or informal learning, as the results from both ELSA and *Understanding Society* show, those in the older age groups are less likely to participate than those in younger age groups. Thus, despite the overwhelming evidence from a range of studies that participation in learning is good for health and well-being, older people appear under-represented in these activities. The situation is equally striking in relation to participation in work-related training. Given the push for extended or fuller working lives as a way to meet the challenge of population ageing, the low rates of older people who are offered or who expect to receive work-related training, as shown by the *Understanding Society* data, must raise concerns. Moreover, it is important to note that these lower rates are not a function of a lack of interest or willingness. The *Understanding Society* survey suggests, in line with other studies, that older workers *do* want to undertake work-related training. Yet it is also clear that they face a range of both individual and institutional barriers, such as cost, time constraints and negative age stereotypes, which prevent them from getting the skills they want and need. The inequalities between age groups are compounded by inequalities in later life. The evidence appears to consistently show that older people in the most advantageous social positions are more likely to undertake learning and training activities.

These are factors that all stakeholders must address. However, as Keep *et al.* (2006) note, policies aimed at re-skilling the workforce, at all ages, will not be successful if they are designed and delivered in isolation from other factors that impact on learning and productivity. Policies and strategies to encourage older workers to participate in learning and training need to be integrated into a wider structure of institutional change that encompasses investment, innovation, work organisation and job design, the employment relationship and employee motivation.

The need to tackle these issues is even more pressing when one turns to the future forecasts modelled from both the NALS and ELSA data. Both sets of data show a relatively steep decline in participation in learning activities for older people since the early to mid-2000s. The reasons for this are complex, involving both positive developments, such as the growth in basic ICT skills, and negative impacts, such as the global recession. Although the impact of the recession was not as great as many feared, it is clear that there has been a retrenchment in learning and skills provision. Given that current financial pressures appear likely to continue into the near future at least, with possible further reductions in public spending, the prospects of a return to pre-2005 levels of lifelong learning participation seem slight. Hence the fall in the rates of participation needs to be understood within a context of a fall in provision. Reflecting on the falling numbers of adult students participating in Level 3 courses, the Association of Colleges (2015) has warned that if the cuts in adult skills funding continue then there will no longer be an

adult education system remaining to support students aged 19 and over. However there appears to be limited scope to redistribute the cost of learning from state and employer onto older people themselves. The cost of training is already cited as one of the main reasons for not undertaking courses in a number of studies. Moreover, as the detailed analyses of both expenditure and opportunity costs presented in Figure 18 demonstrate, individuals already bear a substantial proportion of the current costs.

In short, although there are clearly challenges ahead, if policy makers and employers are serious about supporting active ageing then more needs to be done to ensure that older people have the opportunities and resources needed to participate in learning activities that support productive and healthy lives.

# References

Aldridge, F. and Tuckett, A. (2009) *Narrowing Participation: The NIACE Survey on Adult Participation in Learning*. National Institute of Adult and Continuing Education: Leicester.

Association of Colleges (2015) AoC warns of the end of adult education and training provision by 2020. Available at: [www.aoc.co.uk/news/aoc-warns-the-end-adult-education-and-training-provision-2020#\\_edn1](http://www.aoc.co.uk/news/aoc-warns-the-end-adult-education-and-training-provision-2020#_edn1) (accessed 26 March 2015).

Bang, J. (2010) *Organising Lifelong Learning*. EADTU: Heerlen.

Budderly, P., Kippin, H. and Lucas, B. (2011) *The Further Education and Skills Sector in 2020: A Social Productivity Approach*. Learning and Skills Improvement Service: London. Available at: [www.rsa2020publicservices.org.uk/wp-content/uploads/2011/05/The-Further-Education-and-Skills-Sector-in-2020.pdf](http://www.rsa2020publicservices.org.uk/wp-content/uploads/2011/05/The-Further-Education-and-Skills-Sector-in-2020.pdf) (accessed 9 June 2015)

Commission of the European Communities (2001) *Making a European Area of Lifelong Learning a Reality*. COM(2001) 678. Publications Office: Luxembourg.

Cross, K. P. (1981) *Adults as Learners: Increasing Participation and Facilitating Learning*. Jossey-Bass: San Francisco.

Czaja, S. J. and Sharit, J. (eds) (2009) Preparing organizations and older workers for current and future employment. Training and retraining issues. In: *Aging and Work. Issues and Implications in a Changing Landscape*. John Hopkins University Press: Baltimore, MD, pp. 259–278.

Dench, S. and Regan, J. (2000) *Learning in Later Life: Motivation and Impact*. Department for Education and Employment: London.

Department for Work and Pensions (2014) *Fuller Working Lives – Background Evidence*. DWP: London.

DiSilvestro, F. R. (2013) *Continuing higher education and older adults: A growing challenge and golden opportunity*. *New Directions for Adult and Continuing Education* 140, 79–87.

Duckworth, K. and Cara, O. (2012) *The Relationship between Adult Learning and Wellbeing: Evidence from the 1958 National Child Development Study*. *BIS Research Paper Number 94*. BIS: London.

European Commission (2012) *Discrimination in the EU in 2012. Special Eurobarometer 393 / Wave EB77.4 – TNS Opinion & Social*. Publications Office: Luxembourg.

Eurostat (2014) Participation rate in education and training (last 4 weeks) by sex, age and degree of urbanisation [trng\_lfs\_14]. Available at: [http://ec.europa.eu/eurostat/web/products-datasets/-/trng\\_lfs\\_14](http://ec.europa.eu/eurostat/web/products-datasets/-/trng_lfs_14) (accessed 4 June 2015).

Feinstein, L., Budge, D., Vorhaus, J. and Duckworth, K. (2008a) *The Social and Personal Benefits of Learning: A Summary of Key Research Findings*. Centre for Research on the Wider Benefits of Learning, Institute of Education: London.

- Feinstein, L., Vorhaus, J. and Sabates, R. (2008b) *Foresight Mental Capital and Wellbeing Project. Learning through life: Future challenges*. Government Office for Science: London.
- Felstead, A., Green, F., Jewson, N. and Casey, P. (2013) *Training in Recession: The Impact of the 2008–2009 Recession on Training at Work. Evidence Report 72*. UKCES: London.
- Field, J. (2009) *Well-being and Happiness. IFLL Thematic Paper 4*. NIACE: Leicester.
- Findlay, F., Findlay, P. and Warhurst, C. (2012) *What every worker wants? Evidence about employee demand for learning*. *British Educational Research Journal* 38, 515–532.
- Formosa, M. (2012) *Education and older adults at the University of the Third Age*. *Educational Gerontology* 38, 114–126.
- Formosa, M. (2013) Creativity in later life: Possibilities for personal empowerment. In: Hansen, A., Kling, S. and Gonzalez, J. S. (eds). *Creativity, Lifelong Learning and the Ageing Population*. Jamtli Förlag: Östersund, pp. 78–93.
- Frontier Economics and the Institute for Fiscal Studies (IFS) (2011) *Employment and Earning Outcomes from Train to Gain Extension Analysis. BIS Research Paper No. 48. Annex 3*. BIS: London.
- Gosling, M. (2011) *Older Learners in the Workplace*. The Research Base, for the City & Guilds Centre for Skills Development: London.
- Gray, L. and McGregor, J. (2003) *Human resource development and older workers: Stereotypes in New Zealand*. *Asia Pacific Journal of Human Resources* 41(3), 338–353.
- Green, F., Felstead, A., Gallie, D., Inanc, H. and Jewson, N. (2013) *What Has Been Happening to the Training of British Workers? Centre for Learning and Life Chances in Knowledge Economies and Societies*. Available at: [www.llakes.org](http://www.llakes.org) (accessed 9 June 2015).
- Grut, S. (2013) The challenge of ageing populations – assessing the contribution of heritage and creative learning. In: Hansen, A., Kling, S. and Gonzalez, J. S. (eds). *Creativity, Lifelong Learning and the Ageing Population*. Jamtli Förlag: Östersund, pp. 23–34.
- Hammond, C. and Feinstein, L. (2006) *Are Those who Flourished at School Healthier Adults? What Role for Adult Education? Research Report 17*. Centre for Research on the Wider Benefits of Learning: London.
- Hansen, A. and Zipsane, H. (2013) Elderly as a developing market. In: Hansen, A., Kling, S. and Gonzalez, J. S. (eds). *Creativity, Lifelong Learning and the Ageing Population*. Jamtli Förlag: Östersund, pp. 35–42.
- Humphrey, A., Costigan, A., Pickering, K., Stratford, N. and Barnes, M. (2003) *Factors Affecting the Labour Market Participation of Older Workers*. Department for Work and Pensions: London.
- Jamieson, A. (2012) *Learning in later adulthood: Transitions and engagement in formal study*. *Educational Gerontology* 38(3), 201–211.
- Jenkins, A. (2009) Adult learning, mental health and wellbeing among older adults, Evidence from ELSA Report for the Inquiry into Lifelong Learning, Centre for Research on the Wider Benefits in Learning. Institute of Education: London.

- Jenkins, A. (2011) *Participation in learning and wellbeing among older adults*. International Journal of Lifelong Education 30(3), 403–420.
- Jenkins, A. and Mostafa, T. (2012) *Learning and Wellbeing Trajectories Among Older Adults in England*. BIS Research Paper Number 92. BIS: London. Available at: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/244712/bis-12-1242-learning-and-wellbeing-trajectories-among-older-adults.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/244712/bis-12-1242-learning-and-wellbeing-trajectories-among-older-adults.pdf) (accessed 9 June 2015).
- Kahu, E. R, Stephens, C., Zepke, N. and Leach, L. (2014) *Space and time to engage: mature-aged distance students learn to fit study into their lives*. International Journal of Lifelong Education 33(4), 523–540.
- Keep, E. and James, S. (2012) *A Bermuda triangle of policy? ‘Bad jobs’, skills policy and incentives to learn at the bottom end of the labour market*. Journal of Education Policy 27(2), 211–230.
- Keep, E., Mayhew, K. and Payne, J. (2006) *From skills revolution to productivity miracle – not as easy as it sounds?* Oxford Review of Economic Policy 22, 539–559.
- Learning and Skills Improvement Service (LSIS) (2013) *The Further Education, Skills and Wider Lifelong Learning Sector Workforce. Exploring the Sector in England*. LSIS: London.
- Leitch, S. (2006) *Review of Skills: Prosperity for All in a Global Economy – World Class Skills*. HM Treasury: London.
- Leppel, K., Brucker, E. and Cochran, J. (2012) *The importance of job training to job satisfaction of older workers*. Journal of Aging & Social Policy 24(1), 62–76.
- Lifelong Learning UK (2007) *A Sector Skills Agreement for the Lifelong Learning Sector Stage 1 – Skills Needs Assessment (SNA)*. LLUK: London.
- Marmot, M., et al. (2015) *English Longitudinal Study of Ageing: Waves 0–6, 1998–2013* (22nd edn, computer file). UK Data Archive, Colchester, Essex. SN: 5050. <http://dx.doi.org/10.5255/UKDA-SN-5050-9>
- McNair, S. (2012) *National Adult Learner Survey 2010. Research Paper Number 63*. BIS: London.
- McNair, S., Flynn, M. and Dutton, N. (2007) *Employer Responses to an Ageing Workforce: A Qualitative Study, Research Report No. 455*. Department for Work and Pensions: London.
- McQuaid, R., Raeside, R., Canduela, J., Egdell, V., Lindsay, C. and Berry, C. (2012) *Engaging Low Skilled Employees in Workplace Learning. Evidence Report 43*. UKCES: London.
- Moody, H. R. (2004) Structure and agency in late-life learning. In: Tulle, E. (ed.), *Old Age and Agency*. Nova Science Publishers: New York, pp. 29–44.
- Newton, B. (2006) *Training an age-diverse workforce*. Industrial and Commercial Training 38, 93–97.
- Newton, B., Hurstfield, J., Miller, L. and Bates, P. (2005) *Practical Tips and Guidance on Training a Mixed-Age Workforce*. Age Partnership Group: Sheffield.

- OECD (2006) *Live Longer, Work Longer*. OECD: Paris.
- Office for National Statistics (2014) *Self-employed workers in the UK – 2014*. ONS: London.
- Phillipson, C. and Ogg, J. (2010) *Active Ageing and Universities: Engaging Older Learners*. Universities UK: London.
- Pollard, E., Bates, P., Hunt, W. and Bellis, A. (2008) *University is not Just for Young People: Working Adults' Perceptions of and Orientation to Higher Education*. Department of Innovation, Universities and Skills: London.
- Preston, J. and Hammond, C. (2003) *Practitioner views on the wider benefits of further education*. *Journal of Further and Higher Education* 27(2), 211–222.
- Richeson, N. E., Boyne, S. and Brady, E. M. (2007) *Education for older adults with early-stage dementia: Health promotion for the mind, body, and spirit*. *Educational Gerontology* 33, 723–736.
- Schuller, T. and Watson, D. (2009) *Learning Through Life: Inquiry into the Future for Lifelong Learning*. NIACE: Leicester.
- Schuller, T., Brassett-Grundy, A., Green, A., Hammond, C. and Preston, J. (2002) *Learning, Continuity and Change in Adult Life. Wider Benefits of Learning Research Report*. Institute of Education: London.
- Schuller, T., Preston, J., Hammond, C., Brassett-Grundy, A. and Bynner, J. (2004) *The Benefits of Learning: The Impacts of Formal and Informal Education on Social Capital, Health and Family Life*. Routledge Falmer: London.
- Skills Funding Agency (2015) *Statistical First Release SFA/SFR27, 29 January 2015: Further Education & Skills: Learner Participation, Outcomes and Level of Highest Qualification Held*. Skills Funding Agency: London.
- Smeaton, D. and Vegeris, S. (2009) *Older People Inside and Outside the Labour Market. Research Report: A Review*. Equality and Human Rights Commission: Manchester.
- Taylor, P. and Unwin, P. (2001) *Age and participation in vocational education and training*. *Work, Employment & Society* 15(4), 763–779.
- Towers Perrin (2007) *Profit from Experience: Perspectives of Employers, Workers and Policymakers in the G7 Countries on the New Demographic Realities*. AARP: Washington, DC.
- Tuckett, A. and McAulay, A. (2005) *Demography and Older Learners*. NIACE: Leicester.
- University of Essex, Institute for Social and Economic Research and NatCen Social Research (2014) *Understanding Society: Waves 1–4, 2009–2013* (6th edn, computer file). UK Data Archive, Colchester, Essex. SN: 6614. <http://dx.doi.org/10.5255/UKDA-SN-6614-6>
- Vojak, F. (2013) *Ageing, Longevity and Demographic Change: A Factpack of Statistics from the International Longevity Centre-UK*. ILC: London.
- Weedon, E. and Tett, L. (2013) *Plugging a gap? Soft skills courses and learning for work*. *International Journal of Lifelong Education* 32(6), 724–740.



Williams, J., McNair, S. and Aldridge, F. (2010) *Expenditure and Funding Models in Lifelong Learning*. NIACE: Leicester.

Winterbotham, M., Vivian, D., Shury, J., Davies, B. and Kik, G. (2014) *UK Commission's Employer Skills Survey 2013: UK Results. Evidence Report 81*. UKCESS: London.

Withnall, A. (2010) *Improving Learning in Later Life*. Routledge: London.

Workers' Educational Association (2014) *WEA in 2014*. WEA: London.

Wright, J., Brinkley, I. and Clayton, N. (2010) *Employability and Skills in the UK: Redefining the Debate*. A report prepared for the London Chamber of Commerce and Industry Commercial Education Trust. The Work Foundation: London.



© Crown copyright 2015

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit [nationalarchives.gov.uk/doc/open-government-licence/version/3](http://nationalarchives.gov.uk/doc/open-government-licence/version/3) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication available from [www.gov.uk/go-science](http://www.gov.uk/go-science)

Contacts us if you have any enquiries about this publication, including requests for alternative formats, at:

Government Office for Science  
1 Victoria Street  
London SW1H 0ET  
Tel: 020 7215 5000  
Email: [contact@go-science.gsi.gov.uk](mailto:contact@go-science.gsi.gov.uk)

**GS/15/9**