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MAKING PROGRESS

Boosting the skills and wage prospects of the low paid

Nigel Keohane and Claudia Hupkau

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EXECUTIVE SUMMARY

This research reveals the scale of the challenge facing the UK in relation to low paid work, and the lack of mobility out of low pay. It illustrates the skills gaps that exist across the occupations and sectors where low pay is most prevalent and explains the market failures which make a strong case for state intervention. Finally, it recommends a fiscally-neutral policy that would enable investment in the skills of the low paid thus boosting their productivity and their earnings.

The real problem of low pay

One in five of all workers in the UK are now in low pay.[1] This is high by international standards and it has stayed high for a long time. Of even greater concern than the numbers in low pay is the fact that large swathes of this population get *stuck* in low pay.

This report calculates that some 2.9 million workers in the UK start off in low pay and remain in low paid work for at least a year. This equates to one in every eight workers. The numbers that remain in low pay for longer periods of time are worryingly large – a quarter of the low paid remain stuck in low pay for a decade or more.

This lack of mobility is, in many cases, hugely problematic:

- It means that being in work often does not offer a route out of poverty.
- It necessitates colossal state subsidies for working households – the state expends around £21 billion on tax credits for those in work.
- And, it undermines the productivity of the UK economy – because potential talent in parts of the workforce remains under-utilised.

1 Calculated as two thirds of the median hourly wage.

Of these three problems, it is the productivity challenge that is the most fundamental: leave it unaddressed and the social and fiscal difficulties can only persist and worsen. UK productivity lags behind comparator countries – a lack of investment in physical capital, skills and innovation has undermined UK economic performance. The latest figures show that UK productivity (in terms of output per hour) was 16 percentage points below the average for the rest of the major industrialised economies in 2012; and 24% behind comparators such as France and Germany.

The UK cannot address its low pay problem without addressing this productivity shortfall. To this end, policymakers should seek to boost the skills and productivity of those stuck in low paid work. We can make a strong case to businesses to pay their workers more if these employees are made more valuable to them.

Why skills should be an answer

Three in ten of those on low pay do not have officially-recognised qualifications; a further one in five is educated to GCSE level. Amongst the low paid workforce lie many of the poorly-skilled individuals who require assistance to progress. Meanwhile, the latest Employer Skills Survey finds that employers report significant skills deficiencies; in the three bottom level occupations where low paid work is concentrated, employers report that 656,000 workers have insufficient skills to carry out their current role.

Our analysis shows that for those in low pay the association between training and occupational progression is strong. Those least likely to move occupational group were those on low pay who did not receive training. On receipt of training the low paid become the most likely to progress up the occupation bands. These findings complement other evidence that skills qualifications can help boost the earnings of the low paid. For instance, research by the Department of Business, Innovation and Skills has shown

that on average, achieving a Level 1 qualification adds about 10% to the earnings of a worker with no qualifications.

Despite the advantages that typically stem from training, the low paid are the least likely to receive training, to be offered it by their employer and to take it up when it is offered them. A whole range of factors suppress take up, including cost and time constraints.

In the context of a tightening UK skills budget and with the introduction of 24+ loans for vocational education, this problem is likely to worsen rather than improve. The Government's ambitious apprenticeships policy and the proposals from all political parties to prioritise improvement in school education and support to the young are necessary steps. But, with 80% of the UK's 2020 workforce already of working age, much more needs to be done to boost skill levels.

Stacking up the business case for investing in the skills of the low paid

This research makes the case for adopting an approach that would encourage firms to up-skill those stuck in low pay without additional costs to the public purse. A number of schemes – including the Youth Contract – attempt to use projected savings to the Exchequer to achieve specific goals on employment and wage levels. This research finds a strong case for using the same principle to invest in the skills and productivity of those stuck in low pay, and specifically those who typically receive less support from government, namely those over the age of 24.

So, how much might be saved to the public purse?

We estimate that under a revenue-neutral scheme the Government would be able to spend over £2,000 on each person stuck in low paid work through a mixture of training costs and

financial incentives. Drawing on government and academic studies, the report assumes a central estimate of 10% as an earnings premium that comes from a nationally-recognised skills qualification. Such increases could have a dramatic effect: increasing household incomes and yielding significant savings to the Exchequer. For a typical full-time low-paid worker earning £7 per hour (approximately mid-way between the National Minimum Wage and the low pay threshold), over £800 would accrue to the Treasury each year in increased tax receipts and lower benefits paid out. For low income households with children, where housing benefit payments are high, the savings are even more significant. Were the state to capture these savings, it would enable a significant pot with which to invest in training and incentivise participation so as to address the lack of skills provision and take up for those stuck in low pay. Even allowing for a more pessimistic estimate of the earnings premium of 5%, the government would still be able to invest upwards of £2,000 were the savings to be captured over the course of a parliament.

The gains to the household are also significant. A single person without dependent children with typical housing costs would take home £555 extra per year (net of tax and benefits).

'Skills for Progress' scheme

To boost the skills, productivity and wages of those stuck in low pay, this report proposes a '*Skills for Progress*' scheme. The scheme would make money available to employers (whether private enterprises or public sector organisations) that they could draw down to fund skills provision and qualifications for their employees in low pay. Eligible individuals would include any worker who has earned below the low pay threshold for a year or more and who is aged over 24. We estimate there are approximately 2.93 million eligible workers.

The report suggests that participating firms should be incentivised to seek out the most productive training and to

facilitate progression. This could include the threat of a claw back of part of the funding if the earnings of the employee did not increase after two years elapsing.

Overview of the scheme

Step 1: The employer selects one or more eligible employees that it wishes to train and progress. Eligible employees must all be in low pay; must have been on low pay for a year or more; and, must be aged over 24.

↓

Step 2: The employer draws down funding from the government to pay for the training and qualifications the employer thinks will assist in the progression of the employees.

↓

Step 3: The employer provides the workplace training to the employee. In addition the employer is likely to consider future job design, alongside advice and guidance to the employees.

↓

Step 4: The training is completed and the employer seeks to put the better-skilled employee into more productive and better paid work. Assuming that after two years, the employee's wages have increased, the process is complete. In the event of the earnings not increasing, the employer returns a portion of the initial funding back to the Government.

Employers will be free to organise themselves into partnerships to engage in this scheme. We envisage that some smaller firms – who typically have more limited progression opportunities internally as well as limited human resource capabilities – may wish not to administer the scheme themselves. For those firms that do not wish to participate in this scheme on their own, the report proposes that Local Enterprise Partnerships (LEPs) could take responsibility commissioning training on their behalf. These business-led sub-regional partnerships would be able to draw down funding – as part of their City Deals or Growth Deals – to

invest on behalf of SMEs in their region. As with City Deals, the outcome risks could be shared between national government and LEPs. As well as commissioning training, LEPs would be well-positioned to coordinate advice and HR support that, alongside training, could facilitate progression.

Boosting the skills of those stuck in low pay would make these individuals more valuable to UK firms and to the UK economy, unblocking the barriers to career progression.

CHAPTER 1: INTRODUCTION

The recession and the current recovery have brought the issue of low pay vividly into the public eye. Unemployment has been much lower than many expected, but this has been accompanied by significant reductions in real earnings since 2009.[2] However, this immediate problem of pay should not distract from more fundamental flaws in the UK economy and labour market associated with low pay.

What is low pay?

For the purpose of this paper we use the international definition of low pay: hourly wages below two thirds of the national median wage. In our analysis, we focus on the working population excluding full-time students and those under the age of 25. The low-pay threshold computed for this group from the Quarterly Labour Force Survey, July – September, 2013 is £7.62.[3] The percentage of this group that is low paid is 22%; the number paid below £7.62 is 4.7m. By way of comparison, the standard National Minimum Wage is currently set at £6.31. The Living Wage is a bottom-up calculation of the minimum earnings needed to enable a household to meet basic needs. The current Living Wage rate is £7.65 outside London and £8.80 in London.[4]

1. LOW PAY UK

In September 2013, nearly 5 million people were on low pay, 22% of the total UK workforce. This is a high proportion compared to most other developed countries, second only in fact to the USA. What is more, the prevalence of low paid work is a persistent characteristic of the UK labour market rather than a consequence of the recession.[5]

2 Tony Wilson, Laura Gardiner and Kris Krasnowski, *Work in Progress: Low pay and progression in London and the UK* (Inclusion, 2013).

3 By way of comparison the low pay threshold is £7.28 when under-25s are included.

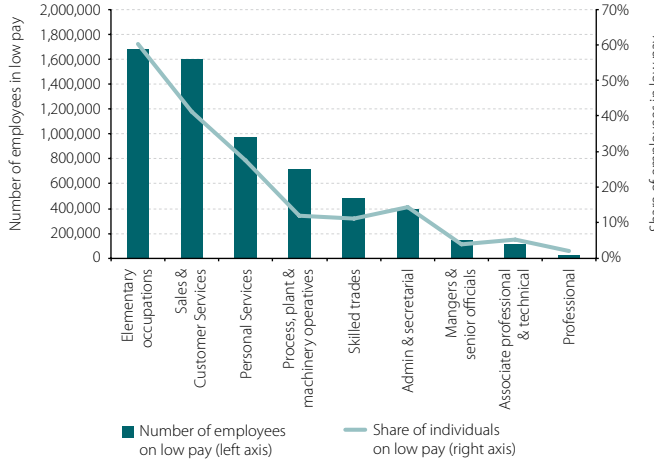
4 The Living wage foundation, What is the living wage?, 2014, www.livingwage.org.uk.

5 Between 1986 and 2011, earnings increased by 47% for those in the lowest decile and by 62% for the median earner.The share of the individuals who were stuck on low pay for at least one year was averaged around 65% in the past decade, exhibiting a rising trend since the crisis (See appendix 3).

2. WHO ARE THE LOW PAID?

Low pay is particularly common in specific sectors and occupations. The proportion of employees on low pay in the private sector (27%) is far higher than the proportion in the public sector (9%). By industrial sector, the highest proportions can be found in retail and hospitality (see Appendix 5). These two sectors have not only the highest percentage of low paid workers but are also the two largest employers of low paid staff, with 1.5 million and 830,000 respectively.[6]

Figure 1: Breakdown of those on low pay by occupation



Source: Resolution Foundation, 2013.

Low pay is also – unsurprisingly – concentrated in lower occupations (see Figure 1). Over half of those in the workforce in elementary occupations and sales and customer service are on low pay.

Low pay is also frequently associated with part-time work, with 43% of all part-time workers on low pay.[7] The percentage of low paid staff is much higher proportionally in small firms than in larger firms.

6 Alex Hurrell and Matthew Whittaker, *Low Pay Britain* 2013 (Resolution Foundation, 2013).

7 Alex Hurrell, *Starting out or getting stuck.* (Resolution Foundation, 2013).

3. THE REAL PROBLEM: THOSE TRAPPED IN LOW PAY

An economy will always have a certain share of the working population on low pay (in part simply because it is a relative measure). Young people may take on low paid jobs to build experience, receive training and gain work skills that will help their career progression.[8] Others may choose to take on roles with little responsibility even though remuneration is low.

Of greater public policy concern are people who become trapped in low-pay, who face difficulties progressing in their job and are dependent on government transfers over long periods of time. The analysis below shows that many people find themselves unable to break out of low pay.

First, this problem can be explored by analysing movement into and out of low pay. As Figure 2 below illustrates, 66% of those who start off in low pay remain in low pay rather than progress during a twelve month period.[9]

Second, evidence suggests that the same is true when looking at the earnings distribution more generally (see Appendix 7): On average over the past decade, about 70% of those who start off in the bottom quintile of the wage distribution stay there for at least one year.

The proportion of those who start off in low pay and remain stuck has grown significantly (see Appendix 3): from around 58% in 2005 to almost 75% in 2013. Between 2012 and 2013, some 2.9 million workers were on low pay and had been for at least one year.

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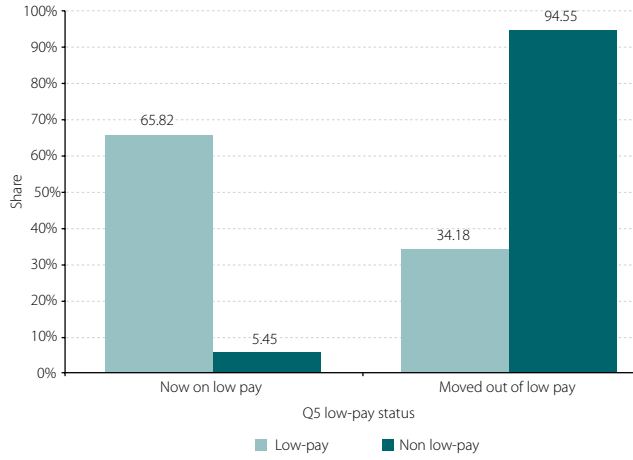
8 The analysis later on in this paper will discount those under 25 to recognise that low pay when young is the natural start to one's career.

9 See also analysis by Inclusion using Living Wage benchmarks. Tony Wilson, Laura Gardiner and Kris Krasnowski, *Work in Progress: Low pay and progression in London and the UK* (Inclusion, 2013).

Figure 2: Wage Mobility: 1-year wage mobility, by initial low pay status



Source: QLFS longitudinal data, Q2 2002–Q2 2003 to Q2 2012–Q2 2013. Notes: Average from 2002–2012, Individuals aged 25 and over, having been continuously employed in the period, with wage observations in the 1st and 5th quarter.

Not only is short-term earnings progression a problem, but a large number of workers also struggle to escape low pay over longer periods of time. Analysis by the Resolution Foundation that tracked individuals over a ten-year period (2002 to 2012) showed that 27% of those who started off on low pay in 2002 stayed on low pay in every year for that decade.[10]

Such evidence contradicts traditional views that low paid work acts as a 'stepping stone' to higher paid employment.[11] The effects of being on low pay can become a vicious circle, with employers seeing low pay status as a signal of poor progression prospects more broadly.[12]

10 Alex Hurrell, *Starting out or getting stuck.* (Resolution Foundation, 2013).

11 A. Knabe & A. Plum, *Low Wage Jobs – Stepping Stone or Poverty Trap?* (Free University of Berlin 2010).

12 J. Schmitt, *Low Wage Lessons* (2012); UKCES, *Employer practice in progressing low-paid staff* (2012).

4. THE PROBLEM OF LOW PAY: SOCIAL, ECONOMIC AND FISCAL

Having large numbers stuck in low pay is hugely problematic economically, socially and fiscally.

A social problem

In-work poverty is now a major problem. Simply getting into work does not ensure a sustainable route out of poverty because the job may be insecure, the pay poor or opportunities for progression limited.[13] Two thirds of the 2.3 million children living in poverty are from households in which at least one adult works.[14] Second, individuals from certain disadvantaged groups – including lone parents, black and minority ethnic groups (including specific sub-groups such as Bangladeshi men) and those without any qualifications – are more likely than others to be in low paid work. Lone parents are more likely (by a factor of almost two) to be stuck in low pay than other groups.[15]

An economic problem

Having large numbers of workers stuck in low pay is also a symptom of the UK's poor record on productivity by international standards. USA output per hour worked is 29% better than that of the UK; that of Germany and France is 24% higher.[16] The UK's response to the recession (with firms holding onto employees rather than making them redundant) did not create this problem, but it exacerbated it.[17] Both the public and the private sector contribute to the UK's poor record.

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13 Mike Brewer, Andy Dickerson, Lynn Gambin, Anne Green, Robert Joyce and Rob Wilson, *Poverty and inequality in 2020 impact of changes in the structure of employment* (JRF, 2012).

14 JRF, "Poverty, economic status and skills: what are the links?", 2013 www.jrf.org.uk ites/files/jrf/households-skills-poverty-full.pdf

15 Tony Wilson, Laura Gardiner and Kris Krasnowski, *Work in Progress: Low pay and progression in London and the UK* (Inclusion, 2013).

16 ONS, *International Comparisons of Productivity – First Estimates, 2012* (2013).

17 Peter Patterson, *The Productivity Conundrum, explanations and preliminary analysis* (ONS, 2012).

Alongside this, commentators have noted that the UK labour market has been characterised by a decline in the proportion of mid-skill level jobs; alongside growth in employment in occupations with wages at the bottom and at the top of the distribution.[18] With a large number of low-skilled jobs, low incidence of training and a hollowing-out economy, many economists argue that parts of the UK economy are stuck in a low-skills/low-productivity equilibrium, thus perpetuating a low-value-added economy. In this scenario, instances where there is little differentiation between products or services, firms compete primarily on cost and have little incentive to up-skill low paid staff or to modernise their processes.

This all implies that boosting the productivity of UK workers and firms is imperative, particularly for those trapped in less productive jobs at the bottom end of the labour market.

A fiscal problem

The fiscal impact of low pay is such that the Government now spends around £21 billion on tax credits for those in work, alongside a large portion of the housing benefit bill.[19] As well as acting as a burden on the state, in-work subsidies also serve to suppress wages. Businesses can get away with paying lower wages than otherwise would be the case. By topping up incomes, the state is correspondingly dampening the incentives for individuals to progress in work and to invest in skills, because any gain in wages is partially offset by a loss in state transfers. Lifting the productivity and earnings of those trapped in low pay could lead to significant reductions to the overall benefit bill.[20]

18 Paul Sissons, *The Hourglass and the Escalator: Labour market change and mobility* (Work Foundation, 2011).

19 Tax credit numbers taken from HMG, *Expenditure Tables*, Budget 2013; Housing Benefit number from, Graeme Cooke, *On the front foot: Designing a welfare cap that reforms social security* (IPPR, 2013).

20 Tony Wilson, Laura Gardiner and Kris Krasnowski, *Work in Progress: Low pay and progression in London and the UK* (Inclusion, 2013).

5. POLICY RESPONSES AND THIS RESEARCH PAPER

Given the scale of the problem, how should we respond?

Currently, there are three sets of responses being proposed by the main parties to resolve the low wage problem. As will be seen, on their own they do not address the fundamental productivity problem and the lack of progression opportunities for those on low pay.

1. **Increasing the personal allowance and reducing the income tax paid by low earners**
   Both parties in the Coalition have championed the extension of the Government's current policy to lift low earners out of income tax. The personal allowance has been increased from £6,475 in 2009–10 to £10,000 in 2014–15. The Budget increased this further to £10,500 in 2015–16. However, such policies do little to boost the productivity of those stuck in low pay.[21]
2. **'Make Work Pay'**
   The Labour Party has proposed 'Make Work Pay' contracts. Under this scheme, a Labour government would reward employers that pay the Living Wage with 32 pence in tax breaks for every pound they add to an employees' wage (up to the Living Wage).[22] The Labour Party claims that this incentive payment would be funded by the savings in benefits and the increases in tax revenues that would result from such an increase. It is unclear what appetite there will be from firms to raise wage levels permanently in return for a one-off subsidy (over the course of the Parliament, the value of the subsidy would equate to one fifteenth of the increased wage bill). Even where it does bite, without interventions to boost the productivity of the workers, it is far from clear whether the workforce will be more productive or just better paid.

21 Andrew Hood, Robert Joyce and David Phillips, 'Policies to help the low paid' in IFS, *Green Budget 2014* (IFS, 2014).

22 Labour Party, *Tackling the cost of living crisis with decent wages, helping business, cutting the cost of failure* (2013).

3. **Welfare reform**

   The Coalition has made concerted attempts to increase incentives to work by introducing more sticks and carrots into the benefit system. Via its 'in-work conditionality' policy, recipients of Universal Credit who earn less than the equivalent of 35 hours at the National Minimum Wage will risk losing part of their benefit payment. Thus far however, there has been little sense of how this will be delivered and there is as yet no significant budget for up-skilling this population. Ironically, under Universal Credit, the incentive is strongest for those entering work rather than progressing in work. The taper rate for someone increasing their earnings will actually be harsher than at present.

THE FOCUS OF THIS PAPER

This research explores the potential for acting first on productivity by making a direct investment in the skills of those trapped in low paid work. The chapter structure is as follows:

- Chapter 2 sets out the overall case for investment in the skills of the low paid
- Chapter 3 sets out the case for government intervention in skills policy
- Chapter 4 describes how the government could invest in the skills of those stuck in low pay.

CHAPTER 2: THE CASE FOR INVESTING IN SKILLS

1. THE IMPORTANCE OF SKILLS

Skills play a fundamental part in the competitive global economy. In order for an economy to grow, the skills of the workforce must be improved so that they correspond to the changing needs of employers.

The speed of technological change and the nature of global competition have made skills ever more important. An employee or workforce that fails to keep up with technological change risks being made redundant by the same force. Meanwhile, better global communication has meant that economic activity has become far more dispersed. In the twenty-first century, many developing countries with low labour costs can compete to provide low value-added activities, thus encouraging developed countries to compete on higher value products and services for which they require higher levels of skill.

2. SKILLS GAPS

A large part of responding to the skills challenge is to improve educational opportunities for children and young people. It is for this reason that successive governments have prioritised spending on schools, and why the current Government is investing heavily in apprenticeships. Alongside this, however, there is a real need to improve the skills and productivity of those in work: 80% of the UK's 2020 workforce are already of working age.

General shortages

Persistent concerns have been registered about the skills of the UK's workforce and young people. At the end of the last decade, the UKCES reported that the UK ranked 12th for higher level skills, but

18th for intermediate level skills and 17th for lower level skills.[23] More recent data suggests that around a fifth of the adult population lack basic literacy and numeracy skills.[24]

Surveys persistently reveal skills gaps across a range of occupations and sectors. The latest UKCES Survey report notes 'a sharp rise in skills shortages which may be holding back the UK's economic recovery'.[25] In England, the number of skill-shortages vacancies (roles that are left vacant due to inability to attract a candidate with the requisite skills) has nearly doubled since 2009, increasing from 63,100 to 124,800. Meanwhile, 22% of all vacancies were considered hard to fill because the skilled labour does not exist in the UK, up from 16% in 2011. There appears to have been an increased difficulty finding appropriate generic skills such as oral and written communication, literacy and numeracy skills.[26]

Skills shortages amongst the low paid

A number of significant skills shortfalls show up specifically in the low-paid workforce and in sectors that are typically associated with lower occupation groups and lower skills levels. The 2013 skills survey found that one in twenty of all current employees were said to be not proficient in their role because of a lack of skills.[27] This equates to 1.4 million staff. Sectors such as Wholesale and Retail, Hotel and Restaurants and Social Work – industries that have a high number of low paid workers – experience sharp skill shortages.[28] As can be seen from Figure 3 below, a high proportion of these employees with skills deficiencies are in lower grade occupations: 656,000 workers within the three bottom occupations are classified

23 UKCES, Ambition 2020: World class skills and jobs in the UK, 2009, www.ukces.org.uk/assets/ukces/docs/publications/ambition-2020-the-2009-report-key-findings.pdf

24 Kang cited in LSE Growth Commission, *Investing for Prosperity* (2013); see also the poor PIAC scores, OECD, *Skills for Life: key findings from the survey of adult skills* (2013).

25 UKCES, *UK Commission's Employer Skills Survey 2013: UK Results* (2014).

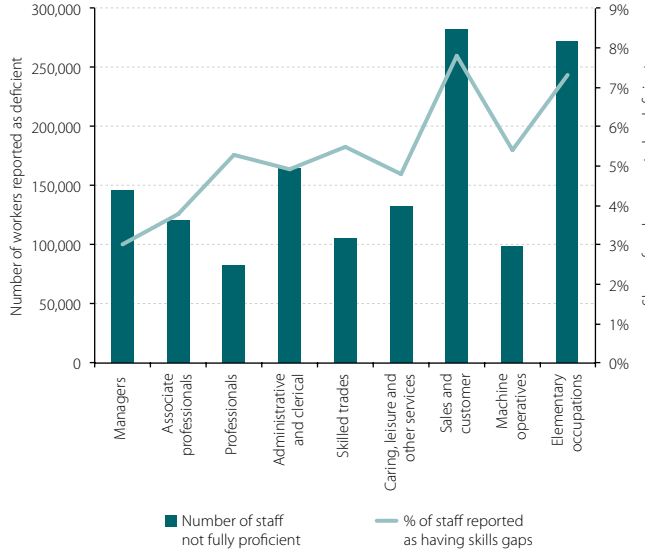
26 Ibid.

27 Ibid.

28 Ibid.

as not being trained sufficiently to fulfil their current role. While such skills gaps are frequently attributed to transient factors (such as new recruits or incomplete training), only 4% of all employers reported that the problem was limited to these transient factors.[29]

Figure 3: Number of staff not fully proficient (as reported by employers)



Source: Data from Resolution Foundation, Low Pay Britain 2013, 2013.

This evidence suggests that, not only are there large parts of the UK workforce without basic skills, but in a significant minority of cases employers are reporting that this is impeding productivity.

In the three lower occupation bands where low pay is congregated, a very wide range of skills deficiencies have been identified by employers. These include many generic skills such as oral and written communication, planning and organisation and computer literacy.

29 UKCES, *UK Commission's Employer Skills Survey 2013: UK Results* (2014).

Figure 4: Skills lacking among staff with skills gaps followed up by occupation

	Managers	Professionals	Associate Professionals	Administratives and Clerical	Skilled Trades	Caring, Leisure and Other services	Sales and Customer Service	Machine Operatives	Elementary occupations
	%								
Base	*3673*	*1568*	*1369*	*3909*	*3032*	*2340*	*4840*	*1488*	*4630*
Technical, practical or job specific	37	59	55	66	68	56	56	68	58
Planning and organisation	70	61	55	67	51	62	55	42	51
Team working	56	46	44	53	40	64	52	53	60
Customer handling	34	36	35	57	34	54	71	23	58
Problem solving	52	45	40	53	47	51	49	52	47
Oral communication	45	40	35	45	35	50	51	48	54
Written communication	32	35	33	48	30	58	25	39	34
Basic computer literacy / using IT	21	18	17	38	18	41	23	35	23
Strategic Management	65	42	29	20	21	15	20	12	16
Literacy	13	16	16	27	23	48	18	39	24
Advanced IT or software	33	33	26	44	17	24	16	15	11
Numeracy	13	14	11	28	19	36	23	31	22
Foreign Language	8	11	7	7	9	21	12	13	16

Source: Table from The UK Commission's Employer Skills Survey 2013: UK Results, p. 132.[30]
Note: Base: All establishments with skills gaps in each occupation – up to two occupations followed up. Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each cause.

When concerns about low skills levels in the UK are combined with employer concerns about skills deficiencies, the case for investing in skills is strong.

30 UKCES, UK Commission's Employer Skills Survey 2013: UK Results (2014).

3. PROSPECTS FOR PROGRESSION: INFLUENCING EMPLOYER DEMAND FOR SKILLS

Notwithstanding these very significant skills shortages, policymakers should not seek to over-simplify the challenge. Alongside boosting skills, employers will need to provide information, advice and guidance to employees, give consideration to job design and progression opportunities and identify those for whom training will have the greatest effect. First, wage progression for those on lower pay varies markedly across different sectors. As Appendix 7 shows, workers starting out in the bottom quintile of the wage distribution in the distribution, hotels and restaurants sector – a sector containing many low paid workers – were least likely to have moved up the wage distribution.[31] In contrast, workers in construction, transport and communication are more likely to progress within a year.

In addition, evidence suggests that opportunities for progression have changed by sector over time. Figure 5 shows the distribution of real wages by sector in 1998 and 2012.[32] For all sectors, real wages are now higher at every point in the distribution than they were in 1998. More importantly, in 1998 the distribution, hotels and restaurants sector had a single peak at the lower end of the spectrum; by 2012 it also displayed a significant dip in the middle. A dip can also be observed for manufacturing, where the 2012 wage distribution indicated a hollowing out effect.

Finally, alongside significant skills shortages among the low paid workforce, there are also some whose skills are reported by their employers as under-utilised, equating to 4.3 million workers.[33] The data implies that in some sectors (such as hotels and restaurants) there are large proportions of the workforce without the necessary skills

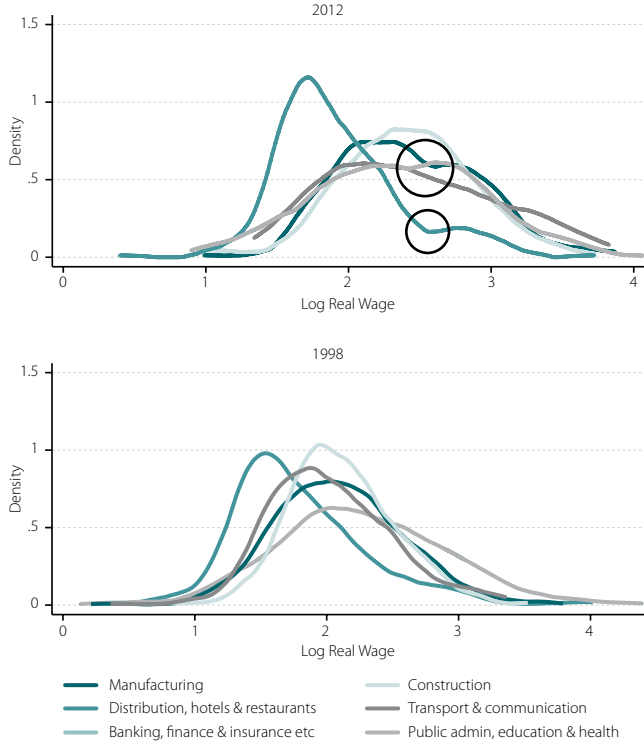
31 This appears to reinforce research that found that employees who remain in manufacturing, wholesale and retail and accommodation and food services industry jobs are less likely to escape low pay.

32 These wages are displayed in log form.

33 UKCES, *UK Commission's Employer Skills Survey 2013: UK Results* (2014).

and a significant proportion that are over-qualified. Various factors may explain this apparent paradox in such a sector: local work may be attractive to people seeking a work-life balance;[34] comparatively highly-qualified university students and graduates may also work in this sector as an interim measure; or workers may possess skills that are not relevant and useful whilst lacking useful skills.[35]

Figure 5: Wage Distributions by sector, comparing 1998 to 2012 (in 2012 prices)



Source: SMF calculations based on QLFS, April–June 2012 and April–June 1998.

34 Jonny Wright and Paul Sissons, *The Skills Dilemma: skills under-utilisation and low-wage work* (Work Foundation, 2012).

35 It is also possible that employers are over-reporting on both measures (though there is no reason to suggest that they are more likely to over-report skills shortages in lower occupations or specific sectors than others).

More generally, low wage workers face particular problems in terms of progression because they typically have fewer development and progression opportunities, less intense human resource oversight and support; and higher staff turnover.[36] Part of this appears to stem from perceptions: research suggests that employers and employees in low-skilled jobs tend not to view low-skilled roles as a foundation for progression.[37] A Chartered Institute of Personnel and Development (CIPD) survey found that fewer than half of employers have a strategy to support the development of low-skilled workers. [38]

Together low skills levels and, in some places, low demand from employers for higher skills, are symptoms of what economists term a 'low-skills equilibrium'. In this scenario, low supply of skills coincides with low demand for skills. Businesses operate with low skills and relatively low wages, compete predominantly on price rather than quality and will not drive demand for higher level skills.[39] However, while an employer cannot simply transform an entry-level job into a skilled job overnight, they can alter their working practices so that more of their employees use skills to perform their jobs.[40] Research by the UKCES has also identified seven enablers displayed by firms that successfully progress those in low pay: committed leadership and management, a culture of progression, human resource development dedicated to training, employee understanding, peer support mechanisms and organisational scale.[41]

Therefore, as well as supplying the skills that employers need, there is also a case to encourage firms and sectors to offer progression opportunities to employees. This may be done through new job

36 UKCES, Engaging low skilled employees in workplace learning, 2012, www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-43-engaging-low-skilled-employees-in-workplace-learning.pdf

37 UKCES, *Employer practice in progressing low-paid staff* (2012).

38 Ibid.

39 Anne Green, *Skills for Competitiveness: Country Report for the United Kingdom* (OECD, 2012).

40 City and Guild, Where now for the unskilled and the low paid (2009) www.skillsdevelopment.org/pdf/2%20%20Where%20Now%20for%20the%20Unskilled%20and%20the%20Low%20Paid%20V1%200.pdf

41 UKCES, *Employer practice in progressing low-paid staff* (2012).

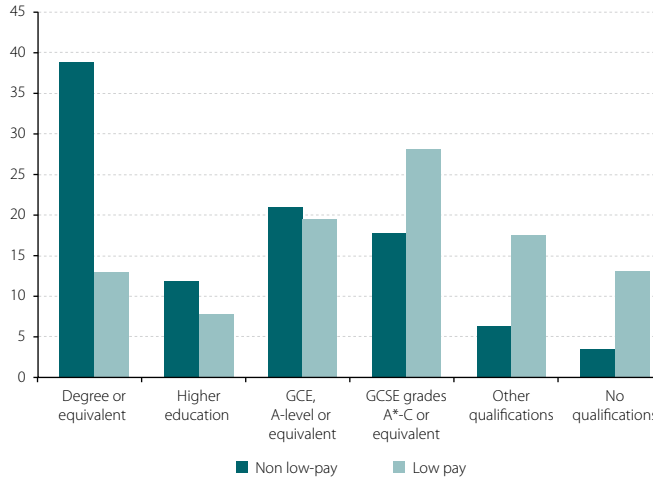
design, information, advice and guidance or adopting new business processes; all of which can complement effective skills training.

4. THE CASE FOR UP-SKILLING THE LOW PAID

Skills and training can boost productivity of the low paid

Low pay does not equate to low skills. However, many in low pay have low levels of qualifications. As Figure 6 shows, more than half of those on low pay are educated to GCSE level or below. Likewise, of those with no qualifications 51% are on low pay.

Figure 6: Distribution of individuals on low pay across different academic qualifications



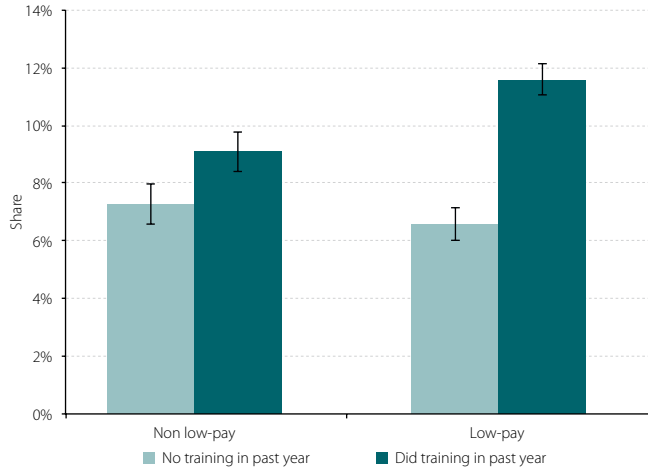
Source: SMF calculations based on QLFS, July 2013-September 2013.

Despite low skills among large swathes of the working population, the evidence suggests strongly that possessing qualifications boosts earnings progression. Research by Policy Exchange showed that people on low pay and with low levels of qualifications were least likely to experience wage increases.[42]

42 Paul Garaud and Matthew Oakley, *Slow Progress: Improving progression in the UK labour market* (Policy Exchange, 2013).

Below we explore two measures of progression for the low paid – moving up the occupational ladder and increases to earnings – and how these relate to training. Figure 7 illustrates the correlation between training and occupational progression for individuals in low pay and those above the low pay threshold (for a chart setting out the occupational classifications see Appendix 8). Those least likely to move occupational group were those on low pay who did not receive training. On receipt of training the low paid become the most likely to move occupation. It should be noted that moving occupational band often represents a significant leap in earnings.

Figure 7: Share of individuals progressing in occupation by training and low-pay status



Source: SMF calculations based on QLFS: average 2002–2012 (with 95% confidence intervals).

Research also suggests that increasing the skills of the low paid increases their earnings. Using Labour Force Survey data, Inclusion estimated average growth at 5% above the growth for those who had not received any work-related training.[43]

43 Tony Wilson, Laura Gardiner and Kris Krasnowski, *Work in Progress: Low pay and progression in London and the UK* (Inclusion, 2013).

Estimating the premium from skills

Existing studies indicate that skills qualifications have a strong effect on the earnings of an individual. Below we seek to identify what seems to be a reasonable estimate of the average effect.

Variation in earnings premiums across skill courses

A defensible case could be made to use the best in class as an indication of what earnings premiums could be delivered by an optimum skills system. For instance, estimates from the Department for Business, Innovation and Skill indicate that while an RSA Level 2 derives a 17% premium, an NVQ at the same level derives a premium of -2% (i.e. it would have been better not to have done the qualification).[44] Given that the past system has condoned poor and mediocre outcomes, a better-designed system could drive performance to the top. Specific government actions explain in part the low yield from some qualifications. A massive and rapid state investment in Level 2 qualifications under Train to Gain resulted in inappropriate qualifications being taken that had little currency in the wider job market, reductions in teaching quality (for example through large classrooms) and a market flooded with similarly qualified individuals. Analyses of the programme have concluded that they 'had little impact on employers' decision to train and often subsidised existing low-level training by firms.'[45]

Due to data availability and methodological differences, estimates vary. An extensive study from the Department for Business, Innovation and Skills (BIS) calculated premiums derived from vocational education qualifications at between 3% and 20%.[46] Premiums from apprenticeships are even higher. However, these figures differ markedly from the outcomes of a DWP study into general workplace training. Using data that tracked individuals over a longer period of time, this study was able to control for

44 BIS, *Returns to Intermediate and Low Level Vocational qualifications* (2011).

45 Tess Lanning and Kayte Lawton, No train, no gain: Beyond free market and state led skills policy (2012). www.ifs.org.uk/budgets/gb2006/06chap8.pdf

46 BIS, *Returns to Intermediate and Low Level Vocational qualifications* (2011).

specific background characteristics such as gender, occupation and motivation. It estimated the wage premium of recipients of employer-funded training at 2%. It is likely that a major explanatory factor is that workplace training includes a wide range of activities, some much less intense and of lower productivity value than formal courses and qualifications. As the DWP report noted, 'the return to some forms of training may be quite low (e.g. as part of induction, or to refresh).'[47]

The existing evidence, therefore, suggests an upper bound of 20% (the best in class for any vocational training) and a lower estimate of 2%. Here we use two working estimates: a central estimate of 10% and a lower estimate of 5%.

The evidence we draw on uses the average premium comparing a group with a specific qualification against a group without the specific qualification. The premiums are drawn from the 2011 BIS study *Returns to Intermediate and Low Level Vocational qualifications*.[48] These premiums use Quarterly Labour Force Survey (QLFS) data and do not control for factors such as individual motivation. However, academic assessments that have compared longitudinal studies to those using the QLFS indicate that the latter provides a reasonable estimate of the premium from training. For more detail, see Appendix 2. It should be noted that these estimates include what have been widely acknowledged as poor-value government-initiated training and qualifications which have suppressed the earnings premiums. Overall the following earnings premiums for different levels of qualifications have been estimated:

47 Tess Lanning and Kayte Lawton, *No train, no gain: Beyond free-market and state-led skills policy* (2012).

48 The effects displayed in this study are the same order of magnitude to that of the 2007 BIS study.

- The average earnings premium for those with a Level 3 qualification compared to those with a Level 2 qualification is 9.6%.
- The average earnings premium for those with a Level 2 qualification compared to those with a Level 1 qualification is 7.9%.[49]
- The average earnings premium for those with a Level 1 qualification compared to those with a no qualification is 9.7%.[50]

Based on the above evidence, our central assumption is a skill premium of 10% across Levels 1, 2 and 3.

A further factor that may affect the wage premium is the age of acquisition. Analysis of this question often suffers from small sample sizes and the evidence here is mixed. One well-respected study found that there was 'little significant variation' by age of acquisition for City and Guilds qualifications, but a 'substantial wage penalty' for later acquisition of NVQ2.[51] Much of the evidence suffers from significant volatility. Our best estimate draws on BIS analysis of Level 2 and Level 3 qualifications; the average gain for those aged 26 and above is approximately 5%.[52]

49 Note, this average would be much higher were the NVQ2 to be stripped out.

50 Note, this average would be much higher were the NVQ1 to be stripped out.

51 Charley Greenwood, Andrew Jenkins and Anna Vignoles, *The returns to qualifications in England: updating the evidence base on Level 2 and Level 3 Vocational Qualifications* (Centre for the Economics of Education, 2007).

52 Note, we do not include the figures for Level 1 here by age of acquisition. BIS's report argued that their results for Level 1 needed to be treated with caution due to significant and unexplained volatility. In addition, they only report results for City and Guilds and NVQ (not BTEC), nor reference, the earnings premium comes out slightly lower at 3.5% for Level 1.

CHAPTER 3: THE CASE FOR GOVERNMENT ACTION ON SKILLS

The evidence above indicates that the UK requires an injection of skills. In fact, the percentage of workers engaging in more than 10 days training per year fell from 38% to 34% between 2006 and 2012, while average training hours fell by a third.[53]

In superficial terms, the case for state intervention should be weak. Given that useful training will result in both a more productive worker and firm, this should translate into higher wages to the individual and better productivity for the business. Under this pure market scenario, workers would spy better employment and wage prospects and invest in the best skills course to allow them to achieve it. However, as Chapter 2 showed, the market does not function perfectly in this way.

Individuals, for their part, have imperfect knowledge of what employment opportunities are out there, and limited understanding of what training to undertake in order to reach the opportunities that they can identify. Even when they spy the right prospect, individuals may struggle to finance the investment – a barrier that the 24+ Loan seeks to resolve.[54] Other constraints such as time also impinge to suppress investment in skills.

Although employers spend significant sums on skills, theory and evidence both suggest that they may not invest as much as is desirable from a societal perspective. Primarily this is because human capital is a mobile rather than a fixed asset and, therefore, a skilled individual is free to move to another firm. From a societal perspective this externality is beneficial; at a firm level it is disadvantageous. While employers may be happy to invest in firm-

53 John Philpott, *Rewarding work for low-paid workers* (Forthcoming JRF, 2014).

54 It should be noted the Apprenticeships have been removed from the loans scheme and are likely to be funded directly by government and employers.

specific skills where productivity gains are likely to be felt by the firm in question, there is a weaker business case for investing in generic transferrable skills. Empirical evidence bears this out: firms have been shown to be less likely to invest in generic skills when potential poachers are near (for instance, when competitors are clustered in close proximity) and when employees are tied more loosely to the firm (for instance, when the employee is on a temporary contract).[55]

1. THE LOW PAID: LOW LEVELS OF TRAINING AND WHY

Training not reaching the low paid

Comparatively little training and support reaches the low paid. Low-skilled people and those with fewer qualifications are less likely to participate in workplace learning than colleagues with better qualifications.[56] A lower proportion of those with lower skills are also given time off for training.[57] This may partly be explained by the shortage of generic skills in this group, which employers are typically more reluctant to fund themselves. However, the lack of training for this group suggests that it may go beyond this. Our analysis of the Labour Force Survey reveals that a far lower proportion of those on low pay undertake training compared to better-paid workers (see Figure 8). While about 65% of those not on low pay received some training over the course of a year; this figure was only about 42% on average over the past decade for individuals on low pay.

Survey data from 2007 suggests that those reporting themselves qualified to (N/SVQ) Level 4 or equivalent were more than one and a half times more likely to be receiving job-related training than lower qualified individuals.[58] A study looking at three sectors

55 SMF, *Britain's got talent* (2012).

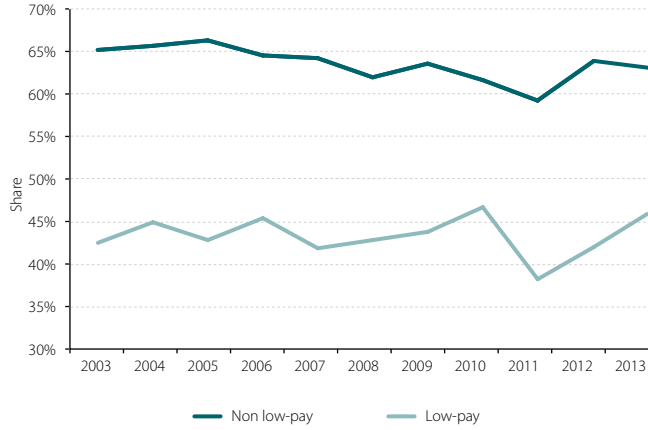
56 Steve Johnson et al, *Employee Demand for Skills Development: a Research and Policy Review – Evidence Report 3* (UKCES, 2009).

57 City and Guild, *Where now for the unskilled and low paid?* 2009 www.skillsdevelopment.org/pdf/2%20%20Where%20Now%20for%20the%20Unskilled%20and%20the%20Low%20Paid%20V1%200.pdf

58 UKCES, Employee demand for skills: A review of evidence and policy, 2009 http://webarchive.nationalarchives.gov.uk/+/www.ukces.org.uk/upload/pdf/Evidence_Report_3_3.pdf

containing large numbers of low paid workers (retail, catering, and care sectors) found that employees in low level occupations and on non-standard contracts are generally less likely to benefit from training than those in higher level occupations.[59]

Figure 8: Share of individuals undertaking training, by year and low pay status



Source: QLFS: 2003–2013.

Two factors constrain the training of those in low paid work: lack of supply of training from employers; and lack of demand from employees.

Employers not offering training

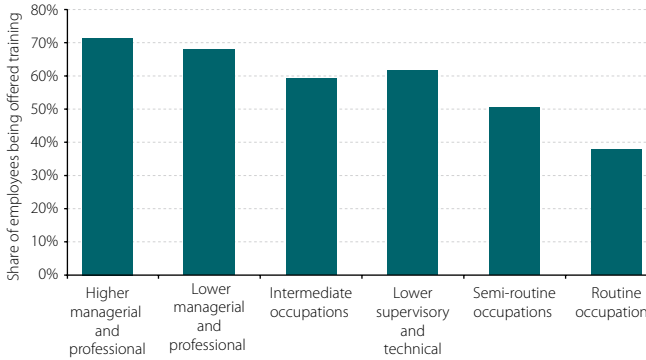
Those in lower occupations are significantly less likely to be offered training (by a factor of almost two for those in routine occupations versus higher managerial). In 2010, the DWP reported that less than one in ten men with no qualifications had access to training.[60]

59 David Devins et al, *Improving progression in low-paid, low-skilled retail, catering and care jobs* (JRF, 2014).

60 Sin Yi Cheung and Stephen McKay, Training and progression in the labour market, (2010 DWP) https://www.gov.uk/government/uploads ystem/uploads/attachment_data/file/214451/rrep680.pdf

What is more, while many firms report that there are training opportunities for the low paid, the majority of these opportunities are training for a current position rather than for progression.[61] While this dispersion of training is not unusual internationally,[62] the UK's skills base at the intermediate and lower level is particularly weak.

Figure 9: Incidence of employer offers of job-related training by NS-SEC, UK working age employees, 2010



Source: Figure from *Low skills and social disadvantage in a changing economy*, p. 5.[63]

Lack of employee take-up

When they are offered training, low-paid workers are less likely to take it up than their higher-paid colleagues,[64] with employers that do offer training to low paid staff reporting that only about 60% of them take it up.[65] External factors such as the workplace environment and the costs of training combined with personal factors such as motivation and attitudes to obstruct employee

61 CIPD, *Making work pay: Implementing Universal* (2014) Creditwww.cipd.co.uk/binaries/6376%20Making%20work%20pay%20research%20report%20(WEB).pdf

62 Ducan Gallie, Hande Inanc and Mark Williams, *The vulnerability of the low skilled*, 2012 http://eprints.lse.ac.uk/46692/1/__libfile_REPOSITORY_Content_Williams,%20M_The%20vulnerability%20of%20the%20low-skilled_The%20vulnerability%20of%20the%20low-skilled%20(LSE%20RO).pdf (the exception was Sweden).

63 Chris Hasluck, *Low Skills and Social Disadvantage in a Changing Economy*, UKCES Briefing paper Series, September 2011.

64 CIPD, *Making work pay: Implementing Universal Credit (2014).*

65 Ibid.

engagement in workplace learning, with the former being more important than the latter.[66]

In a survey carried out for the UKCES, cost was the barrier cited by employees most frequently. This survey – of three sectors with high prevalence of low paid work – found that 54% cited cash fees for training as a reason why they would be unable or unwilling to undertake work related training.[67] Other factors that depress demand include time constraints (a quarter of respondents), family commitments (e.g. childcare responsibilities), ill health, a lack of suitable courses, limited information, insufficient information, advice and guidance, a lack of peer support, and, personal circumstances.

These rational considerations are often compounded by behavioural factors that may dissuade people, most especially the low paid, from investing in skills. Evidence suggests that those on low skills may find it difficult to identify progression opportunities and may view 'lower level jobs' as fragmented and disconnected rather than related steps on a progression path.[68] Workers can therefore feel trapped in 'dead-end' jobs. Past experiences of learning – such as poor educational attainment, poor non-cognitive skills and disaffection with formal education – may affect perceptions of skills and qualifications.[69]

Skills policy in the UK

Successive governments have recognised the UK skills problem and sought methods of redress. There is significant investment taking place in apprenticeships, with the Government funding either the

66 Steve Johnson et al, *Employee Demand for Skills Development: a Research and Policy Review – Evidence Report 3* (UKCES, 2009).

67 Professor Ronald McQuaid, Professor Robert Raeside, Dr Jesus Canduela, Dr Valerie Egdell and Colin Lindsay, Engaging low skilled employees in workplace learning, 2012. http://www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-43-engaging-low-skilled-employees-in-workplace-learning.pdf

68 UKCES, *Employer practice in progressing low-paid staff.*

69 SMF, *Britain's got talent* (2012).

entire cost of the apprenticeship or up to 50% for those over-24. In 2011–12, there were 510,000 apprenticeship starts, 231,000 more than in the 2009/10 academic year.[70] The Coalition Government is currently consulting on further reforms to apprenticeships policy.

However, the Government has stopped providing grant funding for many vocational education courses and is instead asking individuals to fund classroom-based training. There is an expectation that much workplace training should be funded by the employer. Those in work and aged over 24 have to contribute to the funding of their course, either by getting employer contributions or by making contributions themselves (which can be financed by a loan) if they wish to pursue a course above Level 2 (or re-train at Level 2). This is in sharp contrast to those that are out of work who are eligible for funding.

The income-contingent loan model for higher education is now being replicated in further education for learners over the age of 24 in an attempt to resolve the financing constraints faced by individuals. This was introduced in September 2013, although loans for apprenticeships have subsequently been scrapped due to concerns over take-up.[71] BIS estimates that it will result in a 20% reduction in take up of courses.[72]

Such reforms mean that access to the adult skills budget is heavily constrained. On the positive side, the Government is continuing to fully fund English and maths for those with an 'identified need' up to and including GCSE. Otherwise, full funding for skills for those aged over the age of 24 is only available for the unemployed and those claiming benefits.[73] Those undertaking level 3 or 4 qualifications now have to source the funding themselves;

70 House of Commons Library, *Apprenticeship statistics* (10 February 2014).

71 New Economy Manchester, *Advanced Learning Loans (24+) Assessing the Impact on Greater Manchester Learning Providers: Evidence Base Report* (December 2013).

72 Ibid.

73 Skills Funding Agency (2013) Funding Rules 2013/14 Version 2.1.

this is the same for those who wish to retrain at Level 2.[74] This is hugely problematic especially given that a large number of those on low pay have Level 2 qualifications. Individuals or employers are also expected to co-invest in any retraining at Level 2.

2. FISCAL GAINS FROM EARNINGS PROGRESSION

There is another reason why the Government should consider making wider skills investments in the low paid: namely, reduced Treasury expenditure on household benefits and increased tax revenues. However, given the tight fiscal climate, additional expenditure that has no payback or a payback that is longer than the course of a parliament is likely to be unattractive to any government.

Below, we show that skills can drive significant gains not only to the household concerned but also to the public purse. This analysis assumes an earnings premium of 10% (see Chapter 2) derived from a qualification, although we also give estimates were the earnings premium is lower at 5%.[75]

Exchequer gains: the overall scale

Separate calculations by the Labour Party and the IFS estimate that the average savings rate to the Exchequer for households on low pay – combining increased revenue from income tax, National Insurance Contributions and reduced expenditure on tax credits and benefits – is 50%. In other words, for each £1 extra earned by an individual, the Exchequer saves 50p. This grows to approximately 60p once the individuals spend their *additional* wages because the Government would gain further revenue from VAT.[76]

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74 BIS and Skills Funding Agency, *Skills Funding Statement 2013–16* (BIS, 2014). For large employers with over 1,000 employees there is a 25% reduction in funding for those 19 and over.

75 Additionally, there is evidence that individuals who have higher skills are also more likely to experience higher wage growth in the future, which would mean a lasting positive effect rather than a one-off effect.

76 The IFS estimate it at 51%; the Labour Party at 49%. These calculations refer to the average savings to the Exchequer for those earning below the Living Wage. Andrew Hood, Robert Joyce and David Phillips, 'Policies to help the low paid' in IFS, *Green Budget 2014* (IFS, 2014).

When the wages of low earners increase, the Exchequer can gain in the following ways:

- Income tax paid by the household.
- National Insurance contributions paid by the employee.
- National Insurance contributions paid by the employer.
- Tax credits surrendered by the household.
- Housing benefit payments surrendered by the household.
- Additional receipts from VAT (sales tax) attributed to the additional expenditure of the household.

In addition to these gains set out above, expenditure on Council Tax Reduction would fall. Our calculations below exclude this factor because the gains accrue not to the Treasury but to local authorities. However, this may act as an additional spur for local authorities to engage proactively with this agenda.

Figure 10: Estimated earnings premiums and savings to the Exchequer (assuming a starting hourly wage of £7)

Earnings premium	Annual savings	Savings over three years	Savings over five years
10%	£808	£2,424	£4,040
5%	£404	£1,212	£2,020

Source: SMF calculations (see Appendix 5).

The scale of the average savings for those on low pay is significant. Figure 10 estimates the savings to the Exchequer over two time periods: a three-year period (a typical spending review period) and five years (the course of a parliament). They assume gains to the Exchequer at 60p in the £1 and a starting hourly wage of £7.[77]

77 These calculations assume that the training would not have taken place in the absence of the intervention from the Government. For a discussion of the risks of deadweight and methods to minimise it, see Chapter 4 below.

As can be seen, a 10% premium would mean the Government could invest between £2,424 and £4,040 in a training and progression policy. If the premium were lower at 5%, the figures would still be £2,020 for a five-year payback. Meanwhile, an upper bound estimate of 15.6% (the average uplift of the best course currently available at each qualification Level) would derive £1,260 per year. This is put in context by the box below, setting out the costs of a range of courses.

Cost of courses

The costs of vocational education training and qualifications vary significantly. It should be noted that the average costs to the employer of all costs associated with training at Level 2 (i.e. not just the training costs but also the wages of apprentices and trainees, the costs of training materials and courses, the costs of supervision whilst learning on-the-job, the costs of organising training) are: £1,650 (retailing), £1,950 (hospitality), £2,500 (Transport and logistics) and £1,250 (social care).[78] However, there is no suggestion that the Government should pay for the wage costs of trainees, thus suggesting that the direct costs of training would be significantly lower.

Variation in Exchequer savings

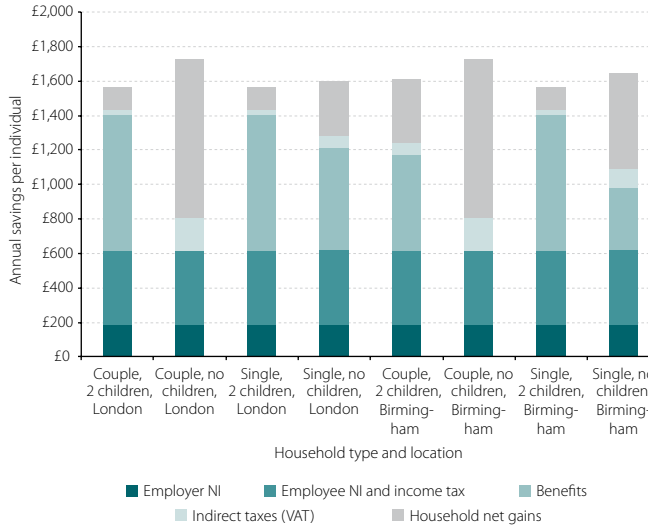
Although these average gains to the Treasury are strong, the variation of these savings also matters in answering two questions: is the minimum saving to the Exchequer sufficient to motivate action in all cases? Might the distribution of the savings encourage the government to target the policy on particular groups?

Below, the analysis simulates the savings to the Exchequer under a central wage scenario for a set of eight specimen household types. In these calculations we vary the make-up of the household as well as the location in which they live (because of significant variation

78 BIS, Employer Investment in Apprenticeships and Workplace Learning: The Fifth Net Benefits of Training to Employers Study (2012).

in, for example, housing costs and housing benefit payments). These calculations were carried out by Ferret Information Systems using its Future Benefits Model. The methodology and the exact composition of the households is described in Appendix 4.

Figure 11: Summary of gains to the Exchequer and the household



Source: SMF calculations based on Ferret Information Systems' Future Benefits Model and SMF calculations (see Appendix 4).
Notes: The above analysis assumes a 10% earnings premium and starting wage £7 per hour, full time worker.

A number of broad conclusions can be drawn from Figure 11 and from the specimen calculations set out in Appendix 4. First, there is a consistent and significant gain to the Treasury across different households that stems from additional income tax and national insurance revenues. Second, the fiscal gains are highest for single parents with dependent children, who typically surrender to the Treasury more of their gain in earnings. Finally, in many cases, the gains that accrue to the Treasury significantly outweigh the gains that flow to the household. This means that the incentives to pursue progression are higher for the Treasury than for some households. Total gains in terms of reduced public expenditure,

increased tax receipts and increased disposable income are in the region of £1600 annually across the different household types analysed here.

Conclusions

This chapter has shown that there is a strong case for government intervention to help up-skill those stuck in low paid work. The evidence suggests that training leads to an increase in earnings and that this, in turn, can generate considerable gains to the public purse. In the following chapter, the report sets out how these savings to the Treasury can be used to invest upfront in the skills of the low paid.

CHAPTER 4: THE '*SKILLS FOR PROGRESS*' SCHEME FOR THE LOW PAID

The previous chapters set out why there is a strong case for up-skilling those stuck in low paid work. They have also indicated that significant gains to the Treasury accrue as an individual's earnings increase as a result of training. This chapter sets out how a policy could be designed to boost the skills and progression opportunities of those stuck in low pay.

This chapter sets out:

1. An introductory outline to the scheme
2. The rationale for the design of the policy
3. A description of the mechanics of the scheme
4. Piloting and further considerations

1. OVERVIEW OF '*SKILLS FOR PROGRESS*'

Aims: The purpose of the scheme is to unlock the talent of those who are trapped in low pay by boosting their skills, their productivity and, in turn, their progression.
Step 1: The employer identifies one or more eligible employees that it wishes to train and progress. Eligible employees must all be in low pay; must have been on low pay for a year or more; and, must be aged over 24. We estimate there are 2.93 million eligible employees.
Step 2: The employer draws down funding from the government to pay for the training and qualifications that the employer thinks will assist in the progression of the employees.
Step 3: The employer provides the workplace training to the employee (either directly or by commissioning it). In addition the employer is likely to consider future job design, and providing advice, guidance and other support to the employees.

Step 4: The training is completed and the employer seeks to put the employee into more productive and better paid work. Assuming that after two years, the employee's wages have increased, the process is complete. In the event of the earnings not increasing, the employer returns a portion of the initial funding back to the Government.

2. RATIONALE FOR THE DESIGN OF THE POLICY

Ensuring that skills are useful to the economy: paying by results

The current adult skills system does not consistently deliver skills and qualifications that are useful to the economy. As shown in Chapter 2 and in Appendix 2, different qualifications deliver markedly different earnings premiums. This variation exists across different awarding bodies as well as across different sectors and different qualification programmes.[79] Given that the Government spent over £2.4 billion in 2013–14 through its Adult Skills Budget, this is hugely concerning.[80]

As Professor Alison Wolf argued in her review of vocational education, 'quality is highly variable'.[81] These differences stem from a mixture of poor provision, poorly-designed qualifications and poor matching of the recipient to labour market opportunities. Currently, providers are typically paid per course and qualification (output) rather than the outcome (the labour market returns). This means providers have little financial incentive to put students on to the best and most appropriate courses.[82] The SMF has previously

79 Figures taken from BIS, *Returns to Intermediate and Low Level Vocational qualifications* (2011).

80 This £2.4 billion only includes money directly spent through the Adult Skills Budget and so underplays the extent of Government spending on skills. BIS and Skills Funding Agency, *Skills Funding Statement 2013–16* (BIS, 2014).

81 Alison Wolf, *Review of Vocational Education – The Wolf Report* (DfE, 2011).

82 The difficulty has been recognised recently with the withdrawal of funding support for 5000 vocational courses. Patrick Howse, Adult courses on balloon art and self tanning axe, BBC, March 5 2014.

made the case for rewarding the providers of skills courses and qualifications on the basis of the earnings uplift that results from the intervention.[83] Given that the target group discussed are all in work, it reduces problems associated with tracking (which may be more of an issue when dealing with the unemployed).

Precedents for payment by results in skills and for in-work progression

Paying for results would mirror the Government's proposals for traineeships (such as through employment outcomes).[84] Such approaches are increasingly being adopted by Local Enterprise Partnerships through City Deals. In the Liverpool City Region City Deal proposal, it is argued that 'there should be an element of skills funding for unemployed individuals that is linked to the economic success those individuals enjoy as a result of that learning.'[85] The North East LEP is seeking to reward providers that get people into work or increase the earnings of those already in work. The Plymouth LEP is piloting a wage progression scheme with the DWP and the Cabinet Office.[86] This latter scheme releases £750,000 to be spent on 750 18–25 year-olds. 50% of this funding will be provided to the Work Programme provider upfront with the remaining 50% linked to the performance of the project.

Design 1:

The Government should ensure that an external accountable entity bares the risk for achieving outcomes through any investment in skills. The desired outcome should be an increase in earnings (compared to the average change in earnings).

83 John Springford, *Britain's got talent* (SMF, 2012).

84 BIs and DfE, Traineeships: Supporting young people to develop the skills for apprenticeships and sustainable employment – Framework for Delivery (2013).

85 Liverpool City Region, Skills for growth (2013).

86 Plymouth City Council, Plymouth and the south west peninsula city deal, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271936/Plymouth_City_Deal_Document_and_Implementation_Plans.pdf

Putting employers in charge

In purely theoretical terms the best actor to incentivise in order to identify the skills needed is the individual. But as noted in Chapter 3, individuals often do not have access to the necessary information to make decisions. What is more, much greater policy attention is now being given to influencing the demand for skills from employers.[87] Therefore, the incentive for earnings progression and productivity improvement should be borne not only by the individual but also by actors that are able to affect demand.

Employers themselves can – by choosing how they compete in the markets in which they operate, and how they invest in and support their staff – determine progression opportunities for low paid workers.[88] Research has shown that the incentive to invest in training and the outcome of investment in training depends on integration with other Human Resource Management policies such as career routes, advice and support.[89] In addition, employers can ensure that the skills provision that they commission is high quality and matched to their economic needs. For both these reasons, large employers are positioned well to take the risk on the outcomes from the investment. Finally, the policy would align with the Government's employer-led skills agenda. As the Minister of State for Skills and Enterprise, Matthew Hancock has argued, 'this Government has always been clear that we cannot create a responsive system by central planning, nor by placing more requirements on training providers.' Instead, funding should be 'directed through the end user – the employer.'[90]

The most recent paper on apprenticeships funding emphasises a number of principles: the employer should determine the content of

87 Paul Sissons and Katy Jones, *How can local skills strategies which increase employer demand for skills help improve outcomes for low earners?* (JRF, 2013).

88 Katie Schmuecker, *Future of the UK Labour Market* (JRF, 2014).

89 Philpott, *Rewarding work for low paid workers* (JRF, 2014).

90 BIS & DfE, A consultation on funding reform for apprenticeships in England, 2013, https://www.gov.uk/government/uploadsystem/uploads/attachment_data/file/223919/bis-13–1071-funding-reform-for-apprenticeships-in-england.pdf

the scheme; employers should purchase the training from providers thus driving value for money; and, employers should have some skin in the game – by co-investing alongside the Government.[91] The '*Skills for Progress*' policy outlined below adopts these intellectual ideas: that employers should bear some risk; that employers should purchase the training; and that employers should lead the decision on the design and content of the training.

Government skills policy: an enhanced role for employers

Doug Richards in his review of apprenticeships, advocated handing greater control of apprenticeships to employers.[92] The Wolf Review of Skills (which covered vocational education, 14–19) also argued that smaller firms should be encouraged to take a lead on apprenticeships and be subsidised. It also argued that employer input into qualifications and course design should be increased more generally.[93] In this vein, the Government has set up the Employer Ownership of Skills Pilots 1 and 2, under which employers are able to bid for funding to pay for training for their workforce. In the autumn, the Government announced that firms now have access to £238 million of funding under this stream.[94]

The Government has sought to 'turn the system on its head' by putting power in the hands of individuals and employers, with the rationale being that employers are better placed to understand what skills are in demand.[95] Co-investment from employers can also give the employer a direct interest in ensuring that the training and qualification are valuable.

91 BIS, *A Consultation on Funding Reform for Apprenticeships in England* (2013).

92 Doug Richard, The Richard Review of Apprenticeships (BIS, 2012).

93 Alison Wolf, Review of Vocational Education – The Wolf Report (DfE, 2011); DfE, Wolf recommendations progress report November 2013 (2013).

94 BIS, Millions in government funding made available to target industrial strategy and skills training, 2013 https://www.gov.uk/government/news/millions-in-government-funding-made-available-to-target-industrial-strategy-skills-training

95 BIS, *Skills for sustainable growth* (2010).

Design 2:

Employers should be able to draw down funding on behalf of eligible workers to invest in skills and progression activity. The employer would be liable for part of the initial payment to be clawed back if an increase in the earnings of the individual is not observed after 2 years. This will encourage the employer to seek out the best skills for the worker, whilst incentivising an interest in improving the productivity and progression of the employee so that they can pay them more.

Minimising deadweight costs by focusing on those stuck in low pay

Policymakers should seek to minimise deadweight. In skills provision this can happen in two ways: first, paying for training that has already taken place with the government simply paying out for accreditation of existing skills. By putting a reward on the outcome (a wage increase) we can minimise incentives for this type of behaviour. Nevertheless, the Government is likely to wish to see that training has been undertaken and one method of doing this would be to hand money over on the condition that it is spent on skills training that leads to a nationally-recognised qualification.

A second risk is that the state may pay for training that would have occurred in any case. Under this scenario, useful training and qualifications take place but such activities would have been undertaken in the absence of the scheme. The National Audit Office estimated that under Train to Gain approximately half of the training under the scheme would have been undertaken by firms anyway.[96]

It is impossible to eliminate deadweight. However, it can be minimised. In the Work Programme, commissioners calculated

96 NAO, *Train to Gain: Developing the skills of the workforce* (2009).

a 'policy-off' outcome that they predicted would occur in the absence of any government programme. Such a task is hugely difficult,[97] but the Government may wish to estimate a baseline level of skills progression for the target group.[98]

In addition, close targeting can reduce deadweight risks by limiting eligibility to a group that is likely to exclude a significant number of those who would have progressed in the absence of the policy.[99]

Design 3:

Limiting eligibility to those who have been stuck in low pay would reduce the deadweight costs, as would incorporating a reward payment or penalty relating to the outcome (wage progression).

Focusing on the over 24s

The aim of the scheme is to unlock the talent of those who are trapped in low pay and the focus is squarely on providing training and progression opportunities to those who do not have these opportunities at present. There is a case to direct the scheme at those aged over 24. First, there are already a significant number of schemes directed at those aged under-25. These include the Youth Contract, efforts being pursued sub-regionally by Local Enterprise Partnerships and the recent announcement to auto-enrol JSA claimants aged 18–21 without English and Maths onto training and for those claiming for six months, to undertake work experience or training.[100] Second, given that many under the age of 25 are in some form of training this would likely complicate the policy. Third, training is already free for those under the age of 24.

97 Ian Mulheirn, Will the work programme work? (SMF, 2011)

98 This could be calculated as a proportion of the 10% earnings premium that represents the gross gain.

99 For a discussion of the trade off in employment policy for deadweight and take up see Paul Bivand, Laura Gardiner, Danielle Whitehurst and Tony Wilson, *Youth unemployment: A million reasons to act?* (Inclusion, 2011).

100 House of Commons Library, *Autumn Statement 2013: a summary* (2013).

Design 4:

The scheme should be limited to individuals over the age of 24.

Encouraging participation

As noted in Chapter 3, employers of low paid workers often do not provide them with training; meanwhile, low paid employees often do not take-up training. While research has shown that some may be motivated to undertake training by relatively modest pay rewards,[101] a range of factors can impede participation on behalf of the individual. A number of schemes and pilots have used financial incentives to encourage participation in training, employment and progression schemes. Recent trials have shown that financial support and mentor guidance can improve the uptake of training.[102]

Encouraging participation in training and progression in work

Financial incentives have been trialled a number of times in the UK and the USA in relation to job retention and progression. In the UK, the Employment Retention and Advancement demonstration pilots were an attempt to offer intensive adviser support and financial incentives to encourage training beyond what would normally occur. The 5-year findings have recently been made public. They show that weekly earnings increased in the treatment group by approximately £10 more than in the control group.[103] The ERA increased incidents of training, and wage advancement was highest where the training was specific to occupations in which people worked. Overall, the evidence suggests that financial incentives can work for some groups.[104]

101 JRF, Poverty and ethnicity: A review of evidence, 2011, www.jrf.org.uk ites/files/jrf/poverty-ethnicity-workplace-culture-full.pdf

102 DWP, *Employment retention and advancement demonstration* (2011).

103 Richard Dorsett and Andrew J. Oswald, 'Human Well-being and In-Work Benefits: A Randomized Controlled Trial', Institute for the Study of Labor, IZA Discussion Paper No. 7943, February 2014.

104 Paul Garaud and Matthew Oakley, Slow Progress: Improving progression in the UK labour market (Policy Exchange, 2013).

Given the barriers that prevent some in the low paid workforce from taking up training, we propose that individuals could be given a financial incentive to complete the training. This could act as an incentive to participate as well as encouragement for workers to complete the training. Given the constraints on some workers, individuals could draw down the incentive early where they were using the money directly on work-related activities such as vouchers for childcare.

Design 5:

To boost take up, employees should be encouraged to undertake training with an incentive payment.

3. MECHANICS OF *'SKILLS FOR PROGRESS'* SCHEME

A step by step guide: how it might work in practice

This section describes how the mechanics of the scheme would operate in more detail. The policy is designed to give employers as much freedom as possible in terms of who they seek to train and progress, as well as giving employers significant discretion in terms of how they train and support these employees.

Step 1: Employers select employees to participate in the scheme

Eligible employees must all be in low pay (using the standard definition); must have been on low pay for a year or more (not necessarily with the same employer); and, must be aged over 24. These represent a group who are being overlooked by current policy. We estimate there are 2.9 million eligible employees.

From this eligible group, employers will be able to select which employees they believe have the greatest chance of

benefiting from training and other support.[105] We envisage that large employers may wish to take groups of employees through the scheme (whether 10, 50, 100 or 250) at the same time. This may link with changes to business processes that the employer is making; alternatively the employer may have identified existing skills gaps that need filling or may be creating new roles into which the employee could progress. Given that work-based training consumes significant resources and energy from the employer, we envisage that it would be unlikely a firm would put all its eligible employees through the scheme at one time.

Depending on their business model and the sector within which they operate, progression routes could take many paths. Below we set out a few:

- Developing new skills to accompany new business processes such as new technologies in work.
- Training to allow workers to move into completely new roles – for instance at the University of Derby cleaning staff moved into administration roles, following training and secondments.[106]
- Allowing sales assistants to be more productive in their jobs, for instance, by boosting their customer service skills and thus the offer to the customer and/or the volume of sales. Existing studies indicate that approaches to boost service quality may lead to opportunities for staff develop and progress in care services.
- Giving employees in frontline roles the skills to move into supervisory functions.

Employees could be encouraged to participate with a reward payment from the government that they receive on completion of the training.

105 It would be desirable for employers to be made aware automatically of eligible employees such as through the Universal Credit system.

106 UKCES, *Employer practice in progressing low-paid staff* (2012).

Step 2: The employer draws down funding

The employer draws down funding from the Government to pay for the training and qualifications it thinks will assist in the progression of these employees. This funding will be available up to £2,000 per participant (although the Government could make this scheme more generous if it is ready to make the savings over a longer period of time).

Step 3: The employer trains the employee and supports their progression

The employer provides directly or commissions an external provider to deliver training to the employees. The employer would be able to select the training that is provided, although the Government may wish to ensure that the training leads to a nationally-recognised qualification. We agree with the Government's position that it should not be the role of the state to prescribe which specific training courses and qualifications employers should use for their employees. However, the Government should seek to publish good quality data on the labour market returns that derive from different qualifications and the labour market outcomes of different training providers. As with proposed apprenticeship policy, the Government may want to consider setting core elements of transferrable skills that any training has to ensure are achieved. These could include functional skills such as English, maths and oral communication.

At the same time as providing training, the employer is likely to consider additional means of supporting the progression of the employee, including: future job design, providing advice and guidance and potentially other support such as mentoring.

Step 4: The training is completed and the employee progresses

Once the employee has been taken through their training and has completed their qualification, the employee receives from the Government the incentive payment and the employer seeks to put the employer into better paid work.

Step 5: Earnings check

After two years, if the employee's wages have increased, the process is complete. In the event of the earnings not increasing, the employer returns a portion of the initial funding back to the Government. If an employee moves work we do not propose that the employer who provided the training should be liable.[107]

With the advent of Universal Credit, the Government will have an effective means of tracking the pay of individuals and households, which will be connected to employer information.

Small and medium-sized enterprises (SMEs)

The evidence suggests that smaller employers may wish to be treated differently from larger employers. Very small employers frequently have neither the requisite HR capability nor the scale to offer internal progression opportunities; and, for many workers in small firms, progression opportunities will be outside their existing firm.

Individual SMEs would be entitled to participate individually. As in the Government's Employer Ownership of Skills pilots, collections of firms would be able to cluster to pursue this together.

In addition, we envisage that there may be a role for Local Enterprise Partnerships (LEPs). Where SMEs do not wish to draw down funding themselves, responsibilities could be carried out by LEPs on their behalf. Labour markets vary considerably across the country, and LEPs play a significant role in linking skills strategies with wider economic development objectives, innovation and business support policies in their areas.[108] Following the review of Lord Heseltine, the Spending Review of June 2013 committed significant additional

107 This mirrors the Government's proposal for apprenticeship funding in which it proposes withholding portion of the funding in a payment by results approach. HMG, *The future of apprenticeships in England: funding reform technical consultation* (March 2014).

108 Paul Sissons and Katy Jones, *How can local skills strategies which increase employer demand for skills help improve outcomes for low earners?* (JRF, 2013).

commissioning power and funding to LEPs, including some skills funding.[109] LEPs are due to submit to the Treasury their Strategic Economic Plans by the end of March 2014; Growth Deals are due to be agreed by July 2014. The Labour Party has also proposed that budgets for apprenticeships and the Work Programme should be devolved to sub-regional bodies – potentially city regions.[110]

Under our proposals, LEPs would be encouraged to commission provision of training through payment by results schemes. These would offer a good way of piloting and developing the concepts of payment by results in skills provision. As part of these agreements, LEPs could propose to provide additional brokerage and advice services to help people move firms. The evidence and best practice also suggests that a bundle of additional services could be wrapped around the skills provision, including career guidance, job mapping and other services. Part of the outcome risk – otherwise borne by employers – should be borne by the LEP as occurs in City Deals. Given concerns about the varying resources and capability of some individual LEPs currently,[111] we recommend that where there are capability gaps local authorities should be allowed to fulfil this function.

4. PILOTING AND FURTHER CONSIDERATIONS

Options for piloting the scheme

Given the problems of workers being stuck in low pay, there is a strong case for the Government to pursue reform actively. However, the Government may wish to test the scheme ahead of wider implementation. This would allow it to explore: how to

109 Lord Heseltine, *No Stone Unturned* (BIS, 2012); HMT and BIS, *Government's response to the Heseltine review* (2013).

110 Labour Press, Ed Miliband speech on tackling the cost of living crisis, 2014 http://press.labour.org.uk/post/82080311502/ed-milibands-speech-on-tackling-the-cost-of-living

111 See for instance, see APPG on Local Growth, *Rising to the challenge: how LEPs can deliver local growth strategies* (2013).

best achieve quality of skills and training; the eligibility criteria; the incentives to employees to participate; what other support employers put in place alongside training to help employees.

- **Employer pilot:** the Government could ask for a small number of large companies to volunteer to test the scheme. This would allow policymakers to test out the effectiveness of the incentives in the scheme, the mechanics of the scheme and how to reduce any regulatory burdens that it may impose on businesses. This could also be an opportunity to assess what HR practices help employees progress alongside the skills training.
- **Regional pilot:** A pilot could be launched to focus on a region where the number of people stuck in low pay is particularly high or where the LEP has identified low pay as a particular challenge in its economic plan. Appendix 6 shows that the proportion of workers stuck in low pay varies significantly across the country, with areas such as Merseyside and parts of the North East having the highest proportion stuck in low pay. A LEP could be given responsibility for commissioning training provision for those stuck in low pay and for coordinating other support functions to go alongside it.

Links to the Government's In-work conditionality policy

Under Universal Credit, an estimated 1.3 million people will be subject to some form of in-work conditionality. Nearly 45% of this group has relatively low qualifications or no formal qualifications at all.[112] It is important that this group receive advice and guidance as to how to increase their hours and/or earnings. The Government should consider offering an additional incentive to employers to train and develop this group given the fact that they consume more state benefits than those in full-time work.

112 Paul Garaud and Matthew Oakley, *Slow Progress: Improving progression in the UK labour market* (Policy Exchange, 2013).

A significant proportion of low paid workers are in part-time work. The payback to the public purse for training may be less strong when someone is working and continues to work part-time compared to full-time. It is important therefore for the Government's 'In-work conditionality' policy to include tangible support structures to help people increase their hours as well as progress their earnings.

Complementarities with other Government skills policy

There should be a place in the market for both high quality apprenticeships and high quality vocational training for those in work. It is to be hoped that take up of apprenticeships continues to increase. The Coalition Government has invested significant energy and funding into apprenticeships since it took office. The Chancellor announced an additional 100,000 higher apprenticeships in the March 2014 Budget. The Richards Review and the Government have done much to emphasise the need for ensuring high quality apprenticeships.

The Government is currently consulting on how to fund apprenticeships. Depending on what methods are adopted, it would be sensible to ensure that the systems are aligned. First, funding structures could be joined up where appropriate. The current consultation makes a number of recommendations for how government money should be distributed (including via credits for the trainee or via PAYE payments to HMRC that employers make).

Second, policymakers would want to avoid the risk that there are perverse incentives for employers or employees to prefer one form of training to the other. Therefore, consideration should also be given as to how apprenticeships for those stuck in low pay should be funded. One option would be for funding available to employers through the '*Skills for Progress Scheme*' to be used for apprenticeship schemes as well.

Additional triggers

In addition, given the reluctance of some employers to offer training to their low paid workers, additional triggers could be introduced to the scheme over time to ensure that eligible workers can access the scheme. Given that any such measures would impose an additional burden on businesses, any such policy should be designed carefully. One option would be to monitor take-up initially and to introduce an employee right to request in specific sectors for firms where there has been no take up. To safeguard against burdensome requirements on businesses, SMEs could be excluded from such a policy for a longer period of time (as is occurring with the staging of auto-enrolment in pensions).

APPENDIX 1: METHODOLOGY – QUARTERLY LABOUR FORCE SURVEY

This report draws on original data analysis by the SMF using the Quarterly Labour Force Survey. For the computation of some of the top level figures, such as the number and fraction of individuals stuck in low pay and the current low pay wage, the latest available quarter at the time of the writing of this report, was used, spanning July 2013 to September 2013.

For the longitudinal analysis which tracks people on low pay we used five-quarter data from the Labour Force Survey, which provides a subsample of individuals who were interviewed in five consecutive quarters. In order to take into account differential attrition of respondents, responses are weighted for the computation of descriptive statistics.

For comparability reasons, we use for every year of longitudinal data the sample of individuals who were tracked starting in the second quarter (April–June). Where not otherwise specified we used a sub-sample of individuals aged 25 and above who were not in full-time education at the time of interview. Self-employed individuals are not included in the analysis as no wage data is available for these groups.

Individuals were classified as being on low pay if their wage was below the low pay threshold. The low pay threshold was computed as two thirds of the median wage of the sample of the first quarter of observation.

Individuals were classified as being stuck on low pay if their wages at the fifth quarter of observation was still below two thirds of the median wage as measured in the *first* quarter of observation and if they had been in employment continuously throughout the observational period of one year.

Occupational progress was defined as moving up at least one step on the occupational scale as defined by SOC2010 major groups.[113] *Elementary Occupations* represent the lowest occupational group, and *Managers, directors and senior officials* represent the highest occupational group.

113 For more information see appendix 8.

APPENDIX 2: CALCULATING THE EARNINGS PREMIUM FROM A QUALIFICATION

The data on skills premiums varies significantly and there are a range of factors that may affect the extent to which a correlation between taking a qualification and observing an increase in wages reflects the productivity boost simply from the qualification rather than unobservable differences between individuals.

Intuitively, there is a concern that the apparent premium may be over-reporting the actual productivity effect, because the increase in the wage may not simply be an exposition of the increase in the salary but also of the ability and/or motivation of the individual. However, there are also biases that may systematically underplay the effect of a qualification on wages. These include the underreporting of qualifications and training which serves to depress the apparent gains from training.

In this study, we use marginal returns from qualifications, which estimates the earnings enhancement achieved when the vocational qualification is the highest qualification.

The BIS paper used Quarterly Labour Force Survey data and was unable to control for unobservable characteristics of individuals. Finding reliable data on relevant qualifications using datasets that control for additional variables (such as motivation) is difficult. The BIS study makes use of the British Cohort Study and claims that this controls for 'motivation'. However, these figures (in Chapter 8) are unhelpful and sample sizes are small.

Other papers imply that using Labour Force Survey (LFS) data gives a reasonable indication of the magnitude of the effect of the qualification. A 2000 paper, *The Returns to Academic and Vocational*

Qualifications in Britain, is an earlier version of the 2011 BIS paper.[114] The study used both the National Child Development Study (NCDS) and the LFS. Under the NCDS it was able to control for natural ability. It concluded that, given the findings from the NCDS and the LFS were very similar, the LFS figures were a reasonably fair reflection: 'Thus our findings suggest that when the returns to qualifications are estimated without controlling for natural ability, then such estimates will be biased upwards by the omitted variable. Conversely, measurement error in qualifications data may bias estimated returns downwards. Given that the estimated returns using the NCDS data, controlling for both ability and measurement error, are very similar to the estimates using the other two data sets, which control for neither, it can be supposed that basic OLS estimates of the returns to qualifications using, for example, the Labour Force Survey, are reasonably close to the true returns.'[115]

A more recent paper looking at the premium to skills in Scotland used both LFS calculations and longitudinal data, which allowed it to control for various attributes of the individual. It concluded that the correlations observed in the LFS give a very good sense of the productivity effect of certain qualifications: 'the correlations that we observe in the data are a reasonable reflection of the causal effects of qualifications on wages. That is, our estimates reflect the additions to productivity that are associated with the qualifications and not any unobservable differences in abilities, attitudes or ambition across individuals with different levels of qualifications.'[116]

Below we set out the tables that give details on the marginal earnings returns to different qualifications by level.

114 Lorraine Dearden, Steven McIntosh, Michal Myck and Anna Vignoles, The Returns to Academic and Vocational Qualifications in Britain, 2000, http://cee.lse.ac.uk/ceedps/ceedp04.pdf

115 Ibid.

116 Ian Walker and Dr. Yu Zhu, The Labour Market Effects of Qualifications, www.scotland.gov.uk/Resource/Doc/919/0065442.pdf

Figure A1: Marginal returns to level 3 qualifications – all

Males and females aggregated				
Comparison	Level 2	L2V/L1A	No Qualifications	5+ GCSEs A*-C
RSA level 3	0.093*** (0.018)	0.142*** (0.021)	0.289*** (0.049)	0.022 (0.033)
C&G level 3	0.111*** (0.004)	0.136*** (0.005)	0.220*** (0.009)	0.034*** (0.011)
BTEC level 3	0.134*** (0.005)	0.173*** (0.007)	0.294*** (0.025)	0.121*** (0.008)
NVQ level 3	0.045*** (0.004)	0.056*** (0.005)	0.141*** (0.014)	0.058*** (0.008)

Notes: Aggregated marginal returns to vocational qualifications – pooled Labour Force Survey data 1996–2009. Level 2: level 2 vocational and/or level 2 academic qualifications as a maximum; L2V/L1A: level 2 vocational and/or level 1 academic qualifications as a maximum; * 10% level of statistical significance; ** 5% level of statistical significance; *** 1% level of statistical significance. Standard errors in parentheses.
Source: London Economics. Tables reproduced from Department for Business and Innovation (BIS), 2011, p. 31.[117]

Figure A2: Marginal returns to level 2 qualifications – all

Males and females aggregated			
Comparison	Level 1	No Qualifications	5+ GCSEs A*-C
RSA level 2	0.170*** (0.029)	0.325*** (0.052)	0.045 (0.034)
C&G level 2	0.088*** (0.007)	0.145*** (0.010)	-0.026** (0.013)
BTEC level 2	0.075*** (0.021)	0.123** (0.058)	0.057** (0.023)
NVQ level 2	-0.016*** (0.005)	0.141*** (0.014)	-0.062*** (0.009)
5 or more GCSEs A*-C only	0.114*** (0.0051)	-0.005 (0.009)	

Note: Aggregated marginal returns to vocational qualifications – pooled Labour Force Survey data 1996–2009 Level 1: level 1 vocational and/or level 1 academic qualifications as a maximum. ** 5% level of statistical significance; *** 1% level of statistical significance. Standard errors in parentheses.
Source: London Economics. Tables reproduced from Department for Business and Innovation (BIS), 2011, p. 32.[118]

117 Department for Business and Innovation (BIS), Returns to Intermediate and Low Level Vocational Qualifications, BIS Research Paper Number 53, September 2011.

118 Ibid.

Figure A3: Marginal returns to level 1 qualifications – all, males and females separately

Marginal returns to level 1 qualifications – all, males and females separately			
	All	Males	Females
Comparison	No qualifications	No qualifications	No qualifications
RSA Level 1	0.165***	0.082**	0.182***
	(0.0088)	(0.032)	(0.009)
C&G Level 1	0.087***	0.010***	-0.003
	(0.0108)	(0.0122)	(0.0216)
BTEC Level 1	0.156***	0.185***	0.093
	(0.0395)	(0.0417)	(0.0768)
NVQ Level 1	-0.02	-0.01	-0.043**
	(0.0124)	(0.0172)	-0.0177

Note: Aggregated marginal returns to vocational qualifications – pooled Labour Force Survey data 1996–2009. No Qualification: No formally recognised qualifications, GCSEs: 5 or more GCSEs at grades A*-C. * 10% level of statistical significance; ** 5% level of statistical significance; *** 1% level of statistical significance. Standard errors in parentheses.
Source: London Economics. Tables reproduced from Department for Business and Innovation (BIS), 2011, p. 39.[119]

Figure A4: Wage premiums associated with selected courses

Qualification	BIS Study (1996–2009)	CEE Study (1997–2006)
BTEC Level 3	20%	17%
City & Guilds Level 3	15%	17%
GNVQ/GSVQ (Advanced)	7%	7%
RSA Level 3	16%	16%
NVQ/SVQ Level 3	10%	11%
BTEC Level 2	12%	13%
City & Guilds Level 2	7%	7%
GNVQ/GSVQ (Intermediate)	-1%*	1%
RSA Level 2	17%	16%
NVQ/SVQ Level 2	2%	2%

Source: Greenwood, C., Jenkins, A., Vignoles, A. The Returns to Qualifications in England: Updating the Evidence Base on Level 2 and Level 3 Vocational Qualifications, Centre for the Economics of Education, London School of Economics, 2007.

119 Department for Business and Innovation (BIS), Returns to Intermediate and Low Level Vocational Qualifications, BIS Research Paper Number 53, September 2011.

By Age

The evidence is mixed as to whether age has an effect on the earnings premiums from skills qualifications. The BIS study found that many sample sizes were too small to draw conclusions, but that qualifications acquired later in life tended to yield lower returns.

Figure A5: Estimated returns to qualifications at Level 3, by age of acquisition

Age	C&G	BTEC	NVQ
15–16	11%	12%	1%
17–18	11%	15%	9%
19–20	14%	15%	11%
21–25	14%	13%	11%
26–30	6%	12%	6%
>30	4%	7%	-1%

Note: Grey cell denotes lack of statistical significance
Source: London Economics. Tables reproduced from Department for Business and Innovation (BIS), 2011, p. 6.[120]

Figure A6: Estimated returns to qualifications at Level 2, by age of acquisition

Age	C&G	BTEC	NVQ
15–16	3%	-12%	1%
17–18	5%	7%	4%
19–20	12%	2%	4%
21–25	11%	10%	7%
26–30	9%	17%	0%
>30	6%	0%	-6%

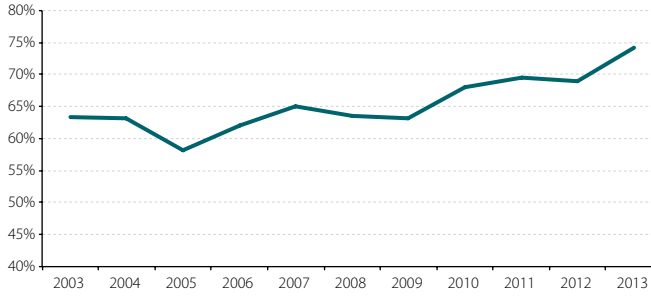
Note: Grey cell denotes lack of statistical significance
Source: London Economics. Tables reproduced from Department for Business and Innovation (BIS), 2011, p. 6.[121]

120 Department for Business and Innovation (BIS), Returns to Intermediate and Low Level Vocational Qualifications, BIS Research Paper Number 53, September 2011.

121 Department for Business and Innovation (BIS), Returns to Intermediate and Low Level Vocational Qualifications, BIS Research Paper Number 53, September 2011.

APPENDIX 3: EVOLUTION OF LOW PAY AND LOW PAY PERSISTENCE

Figure A7: Percentage of individuals on low pay being stuck in low pay for at least one year



Source: QLFS data, Q2 2002–Q2 2003–Q2 2012–Q2 2013.
Notes: Individuals aged 25 and over, having been continuously employed in the period, with wage observations in the 1st and 5th quarter. Source: SMF calculations using QLFS data, Q2 2002–Q2 2003 to Q2 2012–Q2 2013.

APPENDIX 4: METHODOLOGY – HOUSEHOLD SPECIMEN CALCULATIONS FOR SAVINGS TO THE EXCHEQUER

This analysis simulated the savings to the Exchequer under a central earnings scenario for a set of different specimen household types. The exercise was carried out to assess the extent to which the savings were higher or lower depending on location and household constitution. Two locations were used: Outer East London was selected because of high housing costs; Birmingham because it has the median housing costs (as interpreted through the Local Housing Allowance rate).

The gains to the Exchequer were simulated in the following way:

- The effect on the household's benefits was calculated by Ferret Information Systems' Future Benefit Model. This is a highly-respected tax-benefits calculator used in many academic studies.
- We calculated income tax receipts together with Employee National Insurance Contributions by multiplying the earnings increase by 0.32.
- We calculated Employer National Insurance Contributions by multiplying the earnings increase 0.138.[122]
- We calculated additional VAT receipts by multiplying the increase in net household income by 0.21.[123]

Ferret's Future Benefits Model – SMF Earnings Variance Output: Modelling values

The claimant's gross earnings in set 1 are £13,468.

The claimant's gross earnings in set 2 are £14,815, an increase by £1,347 per year.

122 Gov.uk, National Insurance contributions for your employees, 2014, https://www.gov.uk/national-insurance-contributions-for-employers/national-insurance-contribution-rates

123 This is the average percentage of disposable income spent by the bottom 3 deciles of hosueholds according to ONS, "The effects of taxes and benefits on household income, 2011–2012", Table 16A.

For couples the earnings of the partner are standard at £12,500 per year.

The modelling is carried out for four family types.

1. Single no children
2. Single parent with 2 children (children aged 9 and 10, no childcare costs) – able to share a room under LHA bedroom rules.
3. Couple no children
4. Couple with two children (children aged 9 and 10, no childcare costs) – able to share a room under LHA bedroom rules.

We assume households living in the private rented sector.

Each family type is assessed using 2013 LHA levels for Birmingham BRMA and the higher Outer East London BRMA

Figure A8: Local housing allowance levels

LHA levels 2013	1 Bedroom	2 Bedrooms	3 Bedrooms	4 Bedrooms
Birmingham	£96.92	£117.92	£126.92	£165.09
Outer East London	£173.08	£212.26	£265.33	£306.60

Childless households are assessed using the 1 bedroom LHA level for the rent level.

Households with children are assessed using the 2 bedroom LHA level for the rent level.

Council Tax Reduction has not been assessed. There is often a substantial difference between CTR in current scheme and Universal Credit cases as different rules apply.

Methodology

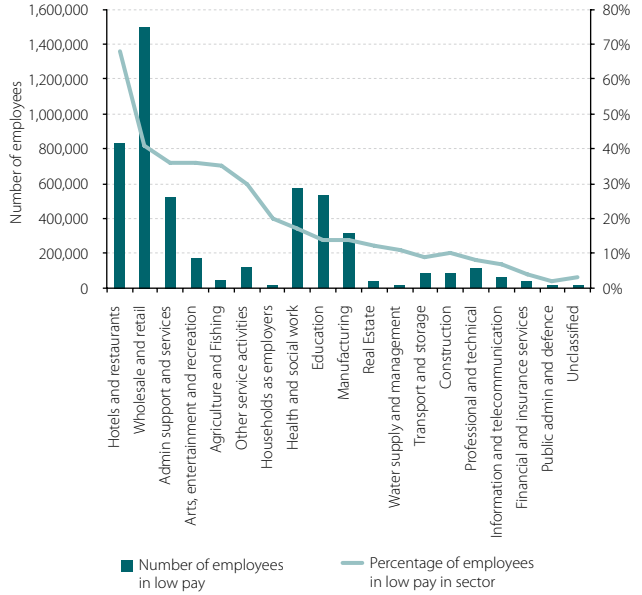
The Future Benefits Model is produced and maintained by Ferret Information Systems.

This model consolidates the changes to personal tax and benefits rules announced in the Emergency Budget of June 2010, the Comprehensive Spending Review of October 2010, the Autumn Statement 2011, the Budgets 2012 and 2013 and the Welfare Reform Act 2012 with subsequent regulations, together with other changes announced to the current schemes of benefits.

Transitional Protection is not applied to any case. The results show the effect of calculated entitlements.

APPENDIX 5: LOW PAY BY INDUSTRIAL SECTOR

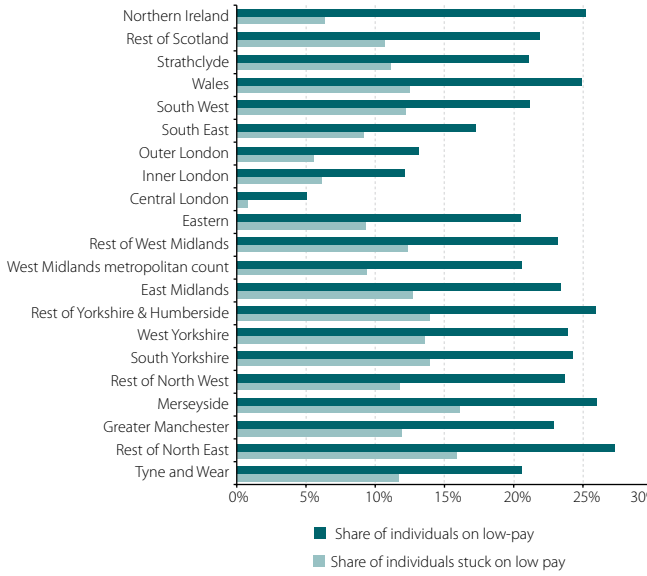
Figure A9: Low Pay in Britain by industrial sector



Source: Data from Resolution Foundation, Low Pay Britain 2013, 2013, p. 26.

APPENDIX 6: REGIONAL DISTRIBUTION OF LOW PAY AND 'STUCK' IN LOW PAY

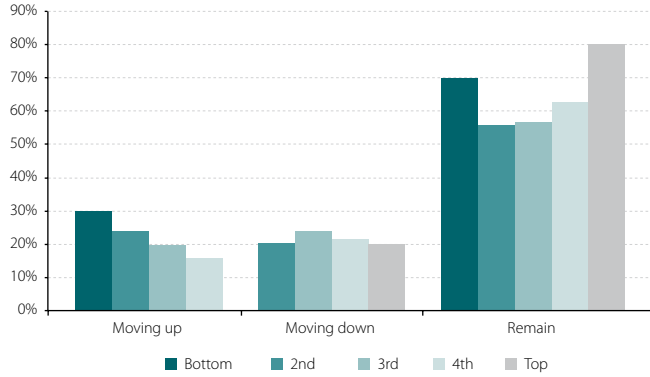
Figure A10: Share of individuals on low-pay and stuck on low-pay, by region of workplace



Source: SMF calculations using QLFS data, Q2 2002–Q2 2003 to Q2 2012–Q2 2013. Individuals aged 25 and over, having been continuously employed in the period, with wage observations in the 1st and 5th quarter.

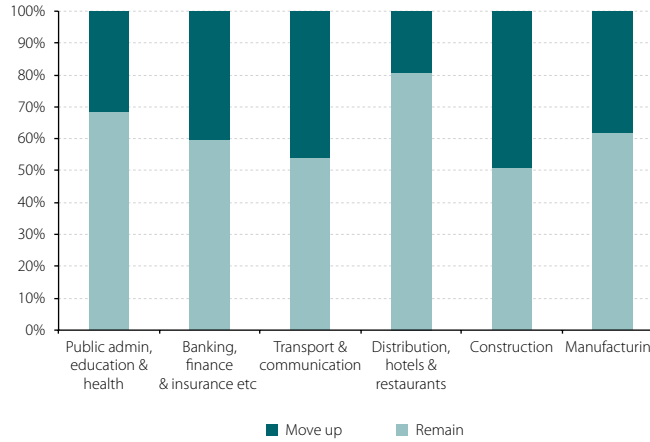
APPENDIX 7: WAGE MOBILITY BY EARNINGS QUINTILES

Figure A11: Wage Mobility: Fraction of individuals remaining, moving up, or down the wage distribution within 1 year, by initial quintile



Source: QLFS longitudinal data, Q2 2002–Q2 2003–Q2 2012–Q2 2013.
Notes: Average from 2002–2012, Individuals aged 25 and over, having been continuously employed in the period, with wage observations in the 1st and 5th quarter.

Figure A12: Real wage mobility from the bottom quintile in wage distribution by sector (LFS)



Source: QLFS longitudinal data, Q2 2002–Q2 2003–Q2 2012–Q2 2013.
Notes: Average from 2002–2012, Individuals aged 25 and over, having been continuously employed throughout the year.

APPENDIX 8: DEFINITION OF OCCUPATIONAL GROUPS

Figure A13: General nature of qualifications, training and experience for occupations in SOC2010 major groups

Major group	General nature of qualifications, training and experience for occupations in the major group
Managers, directors and senior officials	A significant amount of knowledge and experience of the production processes and service requirements associated with the efficient functioning of organisations and businesses.
Professional occupations	A degree or equivalent qualification, with some occupations requiring postgraduate qualifications and/or a formal period of experience-related training.
Associate professional and technical occupations	An associated high-level vocational qualification, often involving a substantial period of full-time training or further study. Some additional task-related training is usually provided through a formal period of induction.
Administrative and secretarial occupations	A good standard of general education. Certain occupations will require further additional vocational training to a well-defined standard (e.g. office skills).
Skilled trades occupations	A substantial period of training, often provided by means of a work based training programme.
Caring, leisure and other service occupations	A good standard of general education. Certain occupations will require further additional vocational training, often provided by means of a work-based training programme.
Sales and customer service occupations	A general education and a programme of work-based training related to Sales procedures. Some occupations require additional specific technical knowledge but are included in this major group because the primary task involves selling.
Process, plant and machine operatives	The knowledge and experience necessary to operate vehicles and other mobile and stationary machinery, to operate and monitor industrial plant and equipment, to assemble products from component parts according to strict rules and procedures and subject assembled parts to routine tests. Most occupations in this major group will specify a minimum standard of competence for associated tasks and will have a related period of formal training.

Major group	General nature of qualifications, training and experience for occupations in the major group
Elementary occupations	Occupations classified at this level will usually require a minimum general level of education (that is, that which is acquired by the end of the period of compulsory education). Some occupations at this level will also have short periods of work-related training in areas such as health and safety, food hygiene, and customer service requirements.

Source: ONS, Standard Occupational Classification 2010, Volume 1, Structure and descriptions of unit groups, 2010, p. 4.

The economic downturn and early signs of recovery have thrust the issue of low productivity of the UK economy into the public debate. While unemployment levels have remained low, real pay has been falling and UK productivity lags behind other major economies. The productivity problem sits alongside widespread skills shortages across industries and occupations, presenting a major growth bottleneck for the UK economy.

At the same time, a significant share of the UK labour force are stuck on low pay, with low skill levels limiting prospects for career progression and wage growth.

Making Progress proposes a skills based in-work progression policy to help individuals stuck on low pay enhance their productivity and escape the low-pay trap. Boosting the skills of those stuck in low pay will make these individuals more valuable to their employers and to the UK economy as a whole.

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