

# Resolution Foundation

## *Up-skilling the middle:*

*How skills policy can help ensure that low to middle income households share in future economic growth*

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## Introduction

Successive Governments have placed skills policy at the heart of strategies to raise living standards and tackle low pay. The importance of up-skilling, for the adult population in particular, reached a high point under New Labour, with low skill levels seen as one of, if not the most important factors holding back businesses from pursuing higher productivity and higher wage strategies.<sup>1</sup> Yet there is growing cynicism about the potential for increases in skills per se to improve the material well being of people on low to middle incomes (LMIs). While those who have degrees continue to reap significant wage benefits from their higher skill levels, the picture looks quite different for the majority of LMIs who possess low and intermediate qualifications, where the returns tend to be much lower and more variable. This paper asks why, despite massive public investment, and a dramatic increase in qualifications, skills policies have failed to deliver significant wage gains for this group of non-graduates, and what could be done to improve their prospects.

There is broad agreement that our education system and labour market work relatively well for most graduates. Average returns to degrees have remained high, despite the increase in the number of graduates. This might suggest there is some scope to raise LMI incomes through increasing the numbers going to higher education still further. There is less agreement on why the gap between graduates and those with low and intermediate qualifications remains so large, and why returns to these qualifications are so variable. Broadly speaking, the debate amongst academics and policy makers is split: on one side are those who point to failings in the skills system and the UK's relatively low *supply* of certain skills; on the other are a growing number who argue that the 'hollowing out' of jobs in the middle of the labour market has reduced the *demand* for intermediate level skills from employers, and that this is reflected in lower wages and productivity for some workers. This paper carries out a critical review of skills policy specifically as it applies to the low to middle income group. We argue that in the context of an increasingly polarised labour market, one key challenge for skills policy in the next decade will be making those with low and intermediate skill more competitive with graduates, reducing the big gap in earnings between these groups.

Section 1 provides a brief overview of why skills matter – both for individuals' productivity and wages, and in terms of the growth of the economy as a whole. Section 2 summarises the current state of the academic and policy debate. Section 3 looks briefly at recent trends in skills supply and demand, before pulling these two stories together in an attempt to steer a course through these debates. Section four draws out the implications of this discussion for policy.

The paper is part of a series of contributions to the Resolution Foundation's Commission on Living Standards. It will inform the Commission's discussions in the run up to a final report in the autumn.

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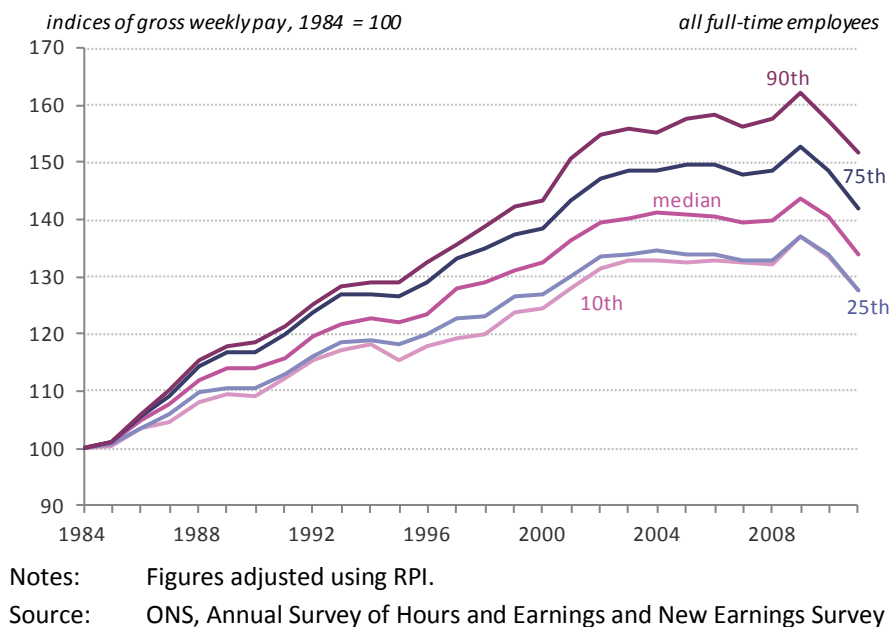
<sup>1</sup> Lloyd, Caroline and Mayhew, Ken, *Skill: the solution to low wage work?*, *Industrial Relations Journal* 41:5, 429–445 (2010)

## 1. Why skills matter

Economic theory tells us that, in the long run, wages broadly reflect productivity. An individual's productivity in turn reflects some combination of their own attributes and skills (human capital), and their ability to put these skills to maximum effect through the use of machinery and technology (physical capital). As such, gaining new skills is one of the key ways in which individuals can raise their wages and living standards.

The potential for skills to raise living standards is all the more important given the backdrop of rising wage inequality since the 1970s (see Figure 1) and the stagnation of wages in the run up to the 2008 recession<sup>2</sup>. Inequality grew rapidly across the distribution in the 1980s and early 1990s. The late 1990s then saw a slightly different pattern emerge, with top earners continuing to move away from the bottom and middle, but a relative convergence of wages between the middle and the bottom, as the lowest wages were boosted by the introduction of the National Minimum Wage (NMW).

**Figure 1: Growing wage inequality: wage growth at different percentile points in the earnings distribution GB 1984-2011**



Looking forward, while the NMW has and will continue to support wages at the very bottom, relatively few LMIs stand to benefit directly from the NMW. And while tax credits grew substantially in the run up to the recession, providing the only major source of household income growth, there are few who think we can afford a repeat of this scale of growth. As such, raising skill levels appears to be one of the few mechanisms we have for raising the household incomes of those in the LMI group.

So what are the skill levels of those in the LMI group? As shown in Table 1 below, and perhaps unsurprisingly, the skill levels that are most concentrated in LMI households are at level 2 (equivalent to 5 GCSE grades A\*-C) and level 3 (equivalent to two A levels). Skills at level 4 and above (degree level) tend to be concentrated in higher income households. Certainly the majority of the LMI group have qualifications at level 3 or below. Table 1 shows the composition of the LMI group in today's labour market, reflecting the qualification levels of current workers of *all* ages. The situation

<sup>2</sup> See, for example, Plunkett, James, *Growth without gain?*, Resolution Foundation (2011)

will however, look different going forward with many more students achieving level 2 in compulsory schooling now. In 2011, virtually all (93.5 per cent) students achieved five passes at GCSE (or equivalent) and just over half achieved five A\*-C grades at GCSE (or equivalent) whilst in compulsory schooling. Increasingly the LMI group will have achieved a level 2 whilst in full time education and/or a level 3 in the first few years after compulsory schooling. There are however, a very large range of different types of qualifications that can be taken to achieve level 2 and 3. This is illustrated by Department for Education data which suggests that for the current cohort, although 55 per cent of pupils in comprehensive schools achieved level 2 through GCSEs, once one includes vocational GCSEs, iGCSEs, BTECS and other equivalent accredited qualifications, 81 per cent of pupils achieved level 2. Those in the LMI group are more likely to have achieved their level 2 through vocational and vocationally related qualifications rather than just academic GCSEs and the wage returns of some of these qualifications is quite variable. We return to this issue below but first we discuss the value of education and skills more generally.

**Table 1: The skills spread: highest level of educational qualification of adults by income group of household UK 2009-10**

	Benefit-reliant	Low to middle income	Higher income	All individuals
No formal qualifications	5%	3%	1%	2%
Level 1	12%	8%	3%	6%
Levels 2 & 3	50%	49%	38%	43%
Levels 4 & above	18%	27%	50%	40%
Other qualifications <sup>1</sup>	15%	13%	7%	10%

Notes: Distribution across the qualification levels is categorised according to RF allocation of original qualification types recorded in the Family Resources Survey to three standard National Qualifications Framework. Level 1 includes GCSE grades D-G; Levels 2 & 3 cover GCSEs grades A-C, A-levels and National Level BTECs; Levels 4+ incorporate higher educational qualifications and degrees. Other qualifications include foreign qualifications below degree level.

Income groups based on RF definitions: see *Squeezed Britain* for a detailed explanation.

Source: RF analysis of DWP, *Family Resources Survey 2009-10*

It is worth noting that it is not just the state that invests in skills. Individuals invest in their own skills, for example by taking professional qualifications that are not state funded. Firms also train their workforces. According to the National Employer Skills Survey, private sector employers spent an estimated £25.5 billion on staff training in 2009, compared to total Government spending on adult skills of £3.9 billion in 2011/12.<sup>3</sup> However, firms left to their own devices in the relatively liberalised UK labour market tend to invest more in higher skilled workers. The lower skilled workers get left behind, with firms less willing to invest in their skill development. This may be rational from the firm's perspective, since the return on their investment in high skill workers may be greater, but this tendency is also likely to exacerbate skill and earnings inequalities in the labour market.

Although this paper is principally focused on the impact of skills policy on wages for individuals in the LMI group, it is important to remember the wider economic and non-economic benefits of education and training systems for society.

Krueger and Lindhal found that education investment makes a similar contribution to a country's economic growth as it does to individuals' wages<sup>4</sup>. It is not simply the average education level of the workforce that matters for economic growth but rather the quality of education acquired and the

<sup>3</sup> Lanning, Tess and Lawton, Kayte, *No Train, No Gain: beyond free-market and state-led skills policy*, IPPR (2012)

<sup>4</sup> Alan B. Krueger & Lindahl, Mikael, 2001, "Education for Growth: Why and for Whom?," *Journal of Economic Literature*, American Economic Association, vol. 39(4), pages 1101-1136



## 2. The state of the debate

The problem we face is the stark difference in economic prospects between those who pursue the academic route into higher education and go on to attract high returns to their degree, as compared to those who have low and intermediate level qualifications and who tend to have both lower and more variable wage returns. In terms of the causes of this, the debate is split between two quite different interpretations. On the one hand, there are those who point to failings in the UK's education and skills system (the 'supply' side) – with a relatively large number of people with very low skill level – as the root cause of low pay and productivity in the bottom half of the labour market. On the other hand, there are those who point to problems in the labour market, namely weak *demand* for skills from British employers, who tend to pursue low skill, low productivity business strategies, and show little appetite for change.

Supply side arguments have dominated skills policy in recent decades, and under New Labour skills were seen as perhaps *the* most important way to address low pay and raise productivity. The central premise underpinning this argument is that the UK suffers from a skills gap, particularly in low to intermediate level skills, and that this is holding back employers from pursuing the higher skill and higher productivity business strategies that would make them competitive in a globalised economy. Proponents of this view tend to rely on international comparisons, which show that when we compare the UK to other countries in terms of post-compulsory education participation rates, levels of cognitive skill and qualification levels, the UK has a higher proportion of low skilled workers than many other countries. While we compare well to other countries in terms of our average performance, in the low skill group we have a higher proportion of our population leaving the education system relatively early and achieving very little in terms of qualifications and skills.

In policy terms, this supply side approach has led to a focus on increasing the quantity of low and intermediate level qualifications in order to catch up with our international competitors. See Box 1 on page 12 for more detail of New Labour and the Coalition's general direction of travel on skills policy.

However, despite significant increases in low and intermediate qualifications, there has been little reduction in the incidence of low pay.<sup>7</sup> As a result, demand side explanations have gained increasing attention.<sup>8</sup> The premise underlying demand side arguments is that low levels of skills and productivity in the UK reflect the low skill business strategies pursued by British employers. It should be noted however, that many of the demand side problems are also global and there is evidence of 'hollowing out' of the middle of the labour market across a range of OECD countries, which we discuss in more detail below. Nonetheless proponents of a demand side solution point to the low and variable returns to many low and intermediate level qualifications in the UK as evidence that they are not being put to productive use by employers. They also point to evidence of significant over-qualification in the workforce, to argue that increasing the supply of skills without changing the incentives or attitudes of employers is unlikely to bring economic benefits. Demand side explanations therefore tend to take a more negative view of globalisation and technological change, arguing that this does not mark the demise of low skill business strategies, and that they are here to stay.

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<sup>7</sup> Lloyd, Caroline and Mayhew, Ken, *Skill: the solution to low wage work?*, Industrial Relations Journal 41:5, 429–445 (2010)

<sup>8</sup> See, for example, Lloyd, Caroline and Mayhew, Ken, *Skill: the solution to low wage work?*, Industrial Relations Journal 41:5, 429–445 (2010); Keep, Ewart et. Al., 'From skills revolution to productivity miracle – not as easy as it sounds?', Oxford Review of Economic Policy, 22:4, 539-559 (2006)



In practice it is difficult to reconcile the labour market evidence on the “skills problem”. Firstly, it is hard to determine whether the minimal wage return to some low and intermediate qualifications is down to a supply side problem, namely poor quality qualifications developing limited skills, or demand deficiency, i.e. insufficient demand for such skills from firms. Both explanations are consistent with the evidence. That said, there is clear evidence of high returns to a wide range of low and intermediate *skills* (e.g. basic literacy and numeracy), as distinct from qualifications, which would suggest some problem on the supply side. At the same time we know from international comparisons that the UK has more unskilled workers than many other countries. This too points us towards at least a partial supply side explanation.

In terms of policy, those who favour a ‘demand side’ explanation point to the need for a more complex mix of interventions which go well beyond the skills system, narrowly defined, directed at employers and businesses. While this argument has gained increasing acceptance in academic and policy debates, with one or two exceptions – notably in Scotland, which has taken a lead on ‘skills utilisation’ with a Skills Utilisation Leadership Group overseeing a strategy in this area – policy makers have been slow to implement measures to increase demand.<sup>9</sup>

### *3. What can we learn from recent trends in skills supply and demand?*

So what has happened to the supply and demand for skills over the past 15 years? This section looks at the changing picture in terms of the supply and demand for skills, before drawing these two stories together to help answer some of the questions running through the debate as outlined above.

As we have said, it is difficult, if not impossible to distinguish cause and effect when it comes to changes in the supply and demand for skills. While it is useful to distinguish one from the other, in the end they are both part of a complex system, whereby the supply of skills in the workforce at any given time inevitably shapes employers business strategies and therefore the demand for skills, which in turn shapes the incentives for workers to undertake new education or training.

#### **Supply**

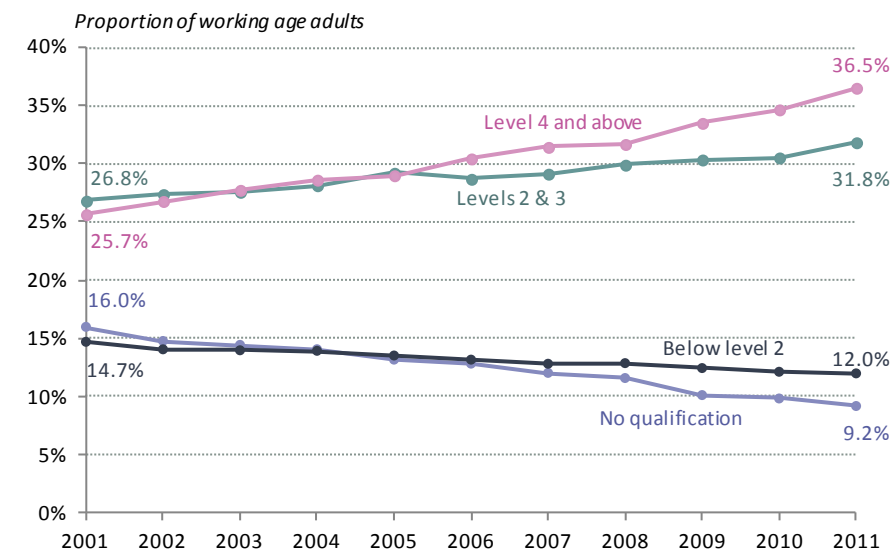
We have noted that in the UK there has been a general up skilling of the population. Figure 3 shows, for instance, that the proportion of working age adults with qualifications at level 4 and above increased from 27 per cent in 2001 to 37 per cent in 2011. More relevant to the LMI group, the proportion of the population with low and intermediate levels of qualification (level 2 and 3) has also increased, from 26 per cent to 32 per cent during the same period. There has been a similarly marked decline in the numbers with ‘no qualifications’, from 16 per cent in 2001 to 9.2 per cent in 2011. There is a clear cohort effect at play here: while 33 per cent of those aged 50-59 in 2011 reported having a level 4 qualification or better, the proportion jumped to 46 per cent among those aged 30-39.<sup>10</sup>

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<sup>9</sup> Payne, Jonathan and Keep, Ewart, *One Step Forward, Two Steps Back? Skills Policy in England under the Coalition Government*, SKOPE (2011)

<sup>10</sup> ONS, Labour Force Survey

**Figure 3: Steady up skilling: highest level of qualification held by working age adults UK 2001-2011**



Note: Figures relate to Oct-Dec in each year.

Source: ONS, *Labour Force Survey*

The increase in skill and qualification levels of the UK population mirrors similar trends across almost all OECD countries. These trends have been partially prompted by the global rise in the demand for skill, which has encouraged individuals to invest in education and training. The value of education certainly remains high across the world and individuals have responded to this by spending longer in education.

Whilst we cannot quantify the extent to which the increase in qualifications observed above is driven by underlying economic trends as opposed to specific policies, in the UK policy has certainly impacted on these supply side trends. A striking feature of UK policy during the last decade or so has been the much increased funding of early years education, which led to a large increase in the proportion of children enrolled in pre-school education during the previous New Labour government. We know from other evidence that this investment is likely to have the greatest positive impact on skill achievement in the longer run. Other school based reforms, such as the introduction of the Literacy and Numeracy hours, have also improved the skills of young children. Some policies have had a more immediate impact on the skills of the workforce, increasing the qualification rates of young people and indeed adults, though not necessarily their skill levels. For instance, the introduction of General Certificates of Secondary Education (GCSEs) in 1988 in place of O levels led to a marked increase in the proportion of young people gaining qualifications at 16. Another illustration is the effect of the *Skills for Life* policy introduced in 2002 that led to free training in basic skills for all adults who had not yet achieved a Level 2 qualification and a consequent increase in the proportion of the population gaining Level 1 and Level 2 qualifications. However, given that we know that many of these low and intermediate level qualifications have limited economic value, we would anticipate that the most successful policies will have been those aimed at improving standards and skills in the school system. It is too early however, to assess the long run effects of these policies on the UK workforce.

Despite the growth in the supply of qualified workers, when we compare the UK to other countries in terms of post-compulsory education participation rates, levels of cognitive skill and qualification levels, we have noted that the UK has a higher proportion of low skilled workers than many other

competitor countries. Whilst the UK has increased the skill levels of its workforce, it has still failed to close the gap with its major competitors, such as the US<sup>11</sup>. In addition, it is important to recognise that while more workers have been leaving the education system having achieved a level 2 or even level 3 qualification, it is far from clear that the qualifications are actually in demand in the labour market. For instance, whilst apprenticeships, Higher National Certificates (HNCs), and many BTEC qualifications have proved highly valuable in the labour market, most NVQ2 qualifications and indeed some NVQ3 qualifications are far less valuable, in terms of wage returns. It also remains to be seen whether some types of GCSEs (e.g. applied GCSEs that have a far higher proportion of coursework in their assessment) will prove valuable. This variability in the returns is part of the explanation for the low returns to some level 2 and level 3 qualifications.

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<sup>11</sup> For long term trends see <http://www.oecd.org/dataoecd/37/45/48642586.pdf>

## **Box 1: Key themes in skills policy under New Labour and the Coalition Government**

We do not attempt a review of the myriad of skills policies that were introduced under New Labour and now under the Coalition (see Keep and Payne (2011) for a more detailed analysis of policy changes). However, looking at the key themes running through the reforms made by successive governments, what stands out is the level of continuity in skills policy in recent decades.

### **Supply side reform**

Both New Labour and the Coalition have largely directed their attention to reform of the education and training system to increase the supply of skills in the UK economy, rather than focusing on industrial policy or other ways to influence the demand for skills.

The reform of the school system in particular has been continuous, some might say relentless, with an emphasis on improving basic literacy and numeracy, increasing the proportion leaving school with at least level 2 qualifications and encouraging more young people to stay on past the age of 16. The need to raise “school standards” and improve the quality of teachers and teaching has been stressed by governments of all complexions during the last 40 years. The emphasis on the supply side is also illustrated by the almost continual introduction of new qualifications and reform of existing qualifications, whether changes to the Apprenticeship programme under New Labour, or more recently reform of GCSEs under the Coalition. Supply side policies have also been aimed at adults, with flagship programmes, such as *Skills for Life* and *Train to Gain*, attempting to increase individual, firm and state investment in adult skills.

### **Quantity not quality**

Another theme in policy development has been the emphasis on increasing the quantity of education acquired and the qualification rate, rather than a strong focus on the type of skills acquired. One could characterise this as a target led approach. One illustration is the target set, for example under the *Skills for Life* initiative, to ensure that adults achieve at least a level 2 qualification. There has been much less recognition of the need to produce more of particular types of skill, though the value of science, technology, engineering and mathematical (STEM) skills has been increasingly acknowledged.

### **Involvement of employers**

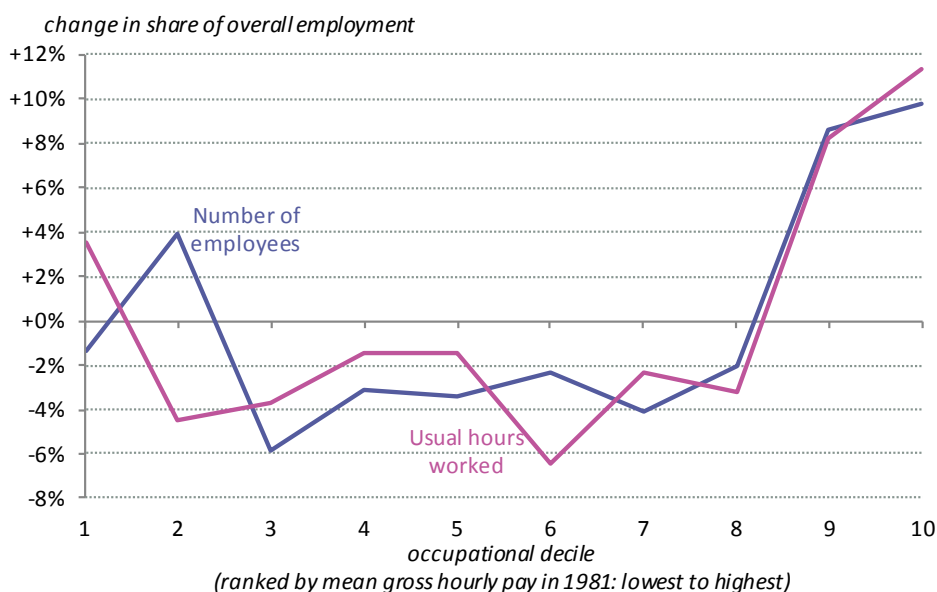
Although most policy reform has emphasised the supply side, on the demand side government has continued to try to engage employers more with the skills system but with limited success. There are many examples of systematic employer engagement, such as via the Sector Skills Councils and the UK Commission for Employment and Skills, but despite institutional changes there has been little in the way of active industrial or labour market policy to increase employers’ demand for skills.

## Demand

Demand for skills is driven primarily by wider changes in the labour market, where the picture is more complex. As has been said, the UK, along with the USA and most European countries have seen considerable polarisation within their labour markets, as the growth in very high and very low skilled jobs has occurred alongside a reduction in the number of intermediate level jobs<sup>12</sup>. Eurofound (2011) for example, showed that in the period since the late 1990s up to, and including, the recent recession, there was strong employment growth in the top two wage quintiles in most European countries, alongside strong employment growth in the bottom quintile of the wage distribution. In most countries however, employment growth was very low in the second and third quintiles of the wage distribution.

The UK mirrors this trend. Figure 4 details changes in employment shares between 1981 and 2008 in ten occupational groups ranked on the basis of pay at the start of the period. In terms of numbers of employees, it shows that employment share increased by 9 per cent and 10 per cent among those occupations located in deciles 9 and 10 in 1981, and by 4 per cent in decile 2, but that share declined in all other occupational groups. In terms of hours worked, the polarisation appears even more pronounced, with growth in share restricted to occupations at the top (deciles 9 and 10) and at the very bottom (decile 1) of the initial distribution.

**Figure 4: Hollowing out of the jobs market: growth in employment across occupations ranked by initial pay rates UK 1981-2008**



Source: LFS 1981-2008 as reported in Holmes & Mayhew, *The Changing Shape of the UK Job Market and its Implications for the Bottom Half of Earners*, March 2012, Resolution Foundation

This “hollowing out” view of the jobs market has been contested, with some authors pointing out that occupational polarisation does not necessarily translate into wage polarisation. That is, while there has been undoubted growth in jobs with titles that previously sat at the top end of the pay distribution, many of these jobs no longer command the same sort of premium, meaning that middle-wage jobs continue to exist, they simply have higher status job titles.<sup>13</sup> Nevertheless, it is

<sup>12</sup> Autor and Dorn, 2009; Autor et al. 2003; Goos and Manning, 2007; Goos et al. 2011; Eurofound, 2011, CEDEFOP, 2010b

<sup>13</sup> Holmes C & Mayhew K, *The Changing Shape of the UK Job Market and its Implications for the Bottom Half of Earners*, March 2012, Resolution Foundation

without doubt that the number of jobs that were previously categorised as intermediate or routine skilled jobs has declined, and this occupational shift appears to have played at least some role in reducing pay growth for middle wage earners.

There are a number of factors that explain both the increase in the demand for very highly skilled labour and the increase in the number of (non routine) unskilled jobs available. For example, technological change has been biased towards creating more highly skilled jobs and has also enabled capital substitution to occur in routine jobs, leaving non routine unskilled jobs less affected. Hence the relative decline in the number of intermediate skilled jobs is a result of both de-skilling of such jobs, and in some instances up-skilling – both trends caused by technological change. Since these are the very jobs that previously gave individuals in the LMI group access to relatively higher wages, the LMI group has been hit hardest by these developments. In terms of the causes of these trends, in addition to technology, increased trade and globalisation also appear to have had a (more minor) role in increasing the demand for skill.

These global demand trends have also impacted differently on different sectors of the economy, all of which have experienced the impact of technological developments and globalisation in a slightly different way, giving rise to different occupational structures and skills profiles. Some sectors employ a high proportion of professionals, offer good career trajectories and generally have a high demand for skill. Other sectors tend to employ largely low skilled labour. For instance, one notable trend in the UK economy is the rise of personal service sector jobs which has played a key role in this dynamic. Not only are these jobs on average lower skilled but there is some evidence that the economic value of many lower level qualifications, particularly vocational qualifications, is lower in these sectors. This suggests that not only do these sectors tend to provide low skilled jobs but also that there is less opportunity for workers who do gain qualifications to be more productive in these sectors and hence earn some benefit from their qualifications. This clearly has implications for the prospects of workers who start their careers in these lower skilled sectors, as well as the ability of skills policy to improve their prospects.

### Bringing it together

Thus while there has been an increase in the supply of skills (or at least qualifications) across the board, we have noted that trends in demand look quite different for those with high as opposed to low and intermediate skills. This section draws together this analysis to look at the implications for the distribution of earnings, particularly for the LMI group.

What we see is at the top end, technology and education seem to be in a race leading to a high skilled work force, doing high skilled jobs, with high levels of productivity and earning high wages to match. The return to a degree has not yet fallen significantly *on average*, despite the massive increase in supply, suggesting that the increase in demand for higher level skills has thus far outstripped the increase in supply (though there is recent evidence that the returns are falling for certain types of new graduates, particularly those in low return subjects such as the arts and humanities<sup>14</sup>).

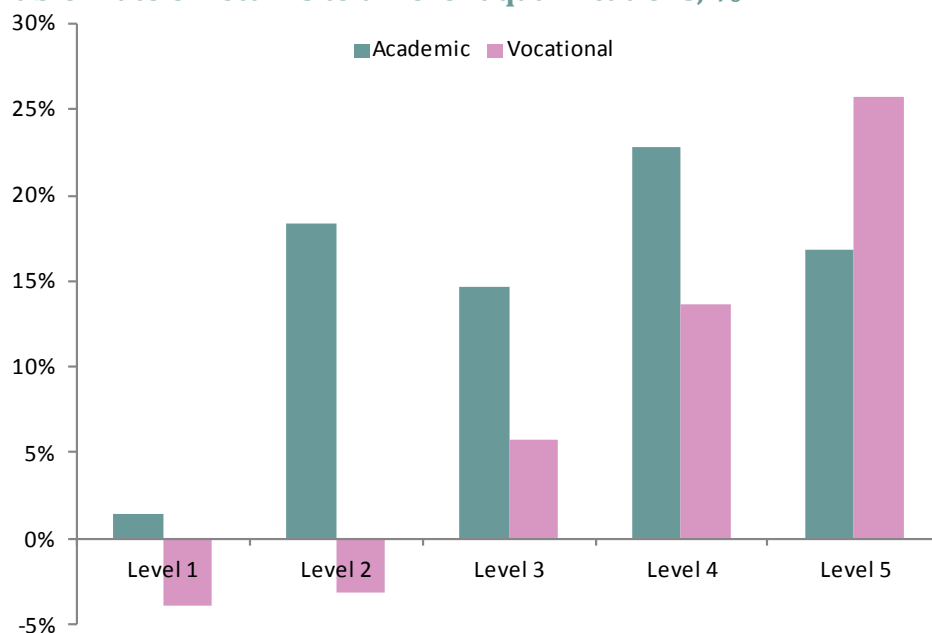
This race has not been playing out in quite the same way for the LMI group who predominantly have level 2 and 3 qualifications. At this lower end of the labour market, those with technology and education are not in a race to ever higher levels of skill – far from it – technology at this end of the market has in fact led to displacement of workers and deskilling of jobs. The story is not all negative: returns to intermediate level qualifications show no overall trend reduction despite a large increase in supply of workers with these qualifications. However, the return to intermediate level, and

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<sup>14</sup> Walker, I. and Zhu, Y., (2008) The college wage premium, over education and the expansion of higher education in the UK, *Scandinavian Journal of Economics*, vol. 110(4), pp.695-709.

particularly vocational, qualifications is extremely variable, and can be low or even negative. NVQ2 qualifications, for example, have consistently been found to bring low or even nil returns<sup>15</sup>.

**Figure 5: returns to low and mid-level vocational qualifications are lower and more variable: Rate of returns to different qualifications, %**



Source: *A study on rates of return to investment in Level 3 and Higher Qualifications*, Institute for Employment Studies (2005)

Stepping back, this picture of divergent dynamics at the top and bottom of the labour market is consistent with the growth in wage inequality that we have seen in the UK in recent years, as illustrated in Figure 1. Those at the very top of the earnings (and skill) distribution have seen by far the largest growth in pay. By contrast those in the middle of the skill distribution earn only moderate returns. What this means for workers in the LMI group is that they are faced with greater employment difficulties as those who lose their intermediate job find it more difficult to get another similar job and hence are forced to take a lower skill and lower paid role.

The hollowing out of the labour market, with a larger proportion of jobs on offer in the UK being either very high or very low skill, may also reduce the scope for mobility and career progression. With fewer intermediate skill jobs available, low skill workers would have to up skill considerably to access the more numerous high skill jobs available. In reality, few are likely to be able to make this leap in their skill levels.

In summary, highly skilled individuals are the beneficiaries of the race between education and technology, and will tend to earn a very high return to their skills and education. But for LMIs, who reside, in general terms, in a more soporific portion of the modern labour market rather than a race between education and technology, we have actually seen a deskilling of jobs, whereby skills per se are increasingly of little use, and there are diminishing opportunities for progression. Hence increasingly those with intermediate level skills and qualifications struggle to compete with the increase in the supply of graduates for the fewer intermediate level jobs available. Workers with intermediate level qualifications are therefore increasingly relegated to lower paid roles.

<sup>15</sup> Dearden et al. 2002; Dearden et al. 2004; Dickerson and Vignoles, 2007; McIntosh, 2006

There are two clear implications from this. Firstly, that the hollowing out of the labour market will necessarily have long run (largely negative) implications for those in the middle of the skills distribution and that this problem is not restricted to the UK. Secondly, and more positively, any skill based approach to improving the prospects of the LMI group must ensure that those with intermediate level qualifications are better able to compete with graduates, in terms of the skills they possess, enabling them to secure some of the higher skill jobs available and hence reducing the big wage gap between graduates and non-graduates.

#### *4. Implications for policy*

The analysis above has demonstrated the quite different dynamics at play for those with higher level skills at the top of the labour market, compared to those with low and intermediate skills at the bottom and middle. We have suggested that a key problem is that individuals with intermediate qualifications need to become more competitive, i.e. better skilled, so that they can compete more effectively against the increased supply of graduates.

This section draws out the implications of this analysis for policy, arguing that a supply side approach focused on boosting the quantity of qualifications has worked well for those with higher level skills but that a different approach is needed if we want to boost the skills and wages of low to middle income households. Specifically, we argue that there is a role for both demand side policies that attempt to better engage employers in the attempt to up skill the LMI group and supply side efforts that focus on providing these workers with the appropriate level and mix of skills that they need. We start by considering the demand side policy issues.

##### *The role of the demand side*

As we have noted, there is a view amongst academics and policy makers that more attention needs to be paid to raising the demand for skills.<sup>16</sup> However, there are many different interpretations of what we mean by demand side policy. One approach would be to use industrial policy to affect the competitiveness of different sectors of the economy in order to shape both the labour market generally and the market for low and intermediate skilled workers specifically. Another, perhaps less ambitious approach, would be to focus on how we can better engage employers with the education and training system in order to try to ensure that workers gain the skills that the labour market really needs. A detailed discussion of the industrial, regulatory and business support policies that would be needed to raise the broad demand for skills would go well beyond the scope of this paper. We focus instead on how we can ensure that the skills system takes better account of the needs of employers and thus ensures that workers have the skills that are in demand by employers.

Identifying whether demand deficiency is a major cause of the low returns to some low and intermediate qualifications is, as has been said, problematic. It is clear however, that the role of firms in the system is crucially important, both in terms of the investments that firms make in skills development and their engagement with the skill system as a whole. To address demand side issues, we need to acknowledge that although firms play a major role in the skilling of the UK work force, they do so in their own interests. We have a very different cultural environment than some countries, such as Germany, where there has always been very close involvement of firms in education and training policy and delivery. We have a free market tradition and no clearly defined corporatist role in our system for firms and employer representative bodies, though employers have

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<sup>16</sup> Lanning, Tess and Lawton, Kayte, *No Train, No Gain: beyond free-market and state-led skills policy*, IPPR (2012); Payne, Jonathan and Keep, Ewart, *One Step Forward, Two Steps Back? Skills Policy in England under the Coalition Government*, SKOPE (2011)



been involved in specific aspects of the skills system, such as the old Training Boards. Even if we accept that with our more free market approach firms will not act as an arm of government, there is still much we might do to increase employer engagement. Indeed, there have been longstanding attempts to increase the engagement of firms with the skills system, such as the development of the sector skills councils and industry involvement in apprenticeships.

There is more that could be done. One option is to give firms more freedom to develop qualifications that are appropriate to their needs. To that end, the Wolf Review of Vocational Education (2011) recommended reducing the regulation of qualifications being offered to 14-19 year olds (i.e. not requiring them to be part of the Qualifications and Credit Framework) so that training providers and employers could have more flexibility in their design and provision. We must however, be mindful that employer engagement in the design of qualifications does not guarantee the economic value of qualifications, as illustrated by the variable returns to NVQs which had a high level of employer engagement.

One could of course go further. Compulsory training levies and subsidies for employer training are both options that are used in other countries and indeed options that have been used in the UK in the past. For example, the recent *Train to Gain* programme was a scheme to incentivise employers to invest in their lower skilled workers. The challenge with such schemes is to minimise deadweight loss, i.e. funding firms to do what they would have done anyway, and to avoid encouraging firms to make investments that are not genuinely valuable either to the firm itself or the individual, a subject we return to below. Although the Coalition government has axed *Train to Gain*, it continues to incentivise firms to train by giving substantial amounts of tax relief on training for firms and this is one area for potential policy action as we discuss in section 4 below.

### Quality not quantity

A clear conclusion that emerges from recent experience of skills policy, as argued cogently in the Wolf Review, is that while the focus on quantitative targets has worked quite well for those with degree level qualifications (in part thanks to a more benign labour market context for higher skills), it has been particularly ill-suited to the goal of higher living standards for those on low to middle incomes, who mainly possess Level 2 and Level 3 qualifications.

Successive governments have set targets for the proportion of the population achieving an intermediate or high level of qualification. This has most certainly increased the proportion of the work force acquiring intermediate and higher level qualifications, as seen above in Figure 3 which shows the steady increase in the stock of qualifications in the UK. But, as discussed above, this does not mean, that such approaches have led to genuine up skilling, in the sense of providing more workers with the skills that are in demand in the labour market.

Reform of UK skills policy therefore needs to focus on why some of these level 2 and level 3 qualifications on offer do not apparently meet the needs of employers in some sectors. Policy-makers need to consider not just the level of skills required but also the types of skill demanded by the labour market. To understand better how to design policy that provides workers with skills that are genuinely in demand in the labour market, we need to learn from those sectors for which there are higher returns to level 2, and level 3 qualifications (e.g. apprenticeships in many manufacturing sectors). Closer scrutiny of the skills that such qualifications provide, and consideration of how they might be adapted to suit other sectors is still needed several decades after these issues were first noted in relation to the low value of qualifications such as NVQ2.<sup>17</sup>

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<sup>17</sup> Dearden, L., McIntosh, S., Myck, M. and Vignoles, A., (2002), "The Returns to Academic and Vocational Qualifications in Britain", *Bulletin of Economic Research*, 54, pp.249-274.

In addition to improving the design of qualifications at level 2 and 3 to ensure that they provide individuals with skills that are in demand, we also need to recognise the problems that may have caused these qualifications to have low economic value. In particular there are problems caused by setting quantitative targets for providers in the education and training system. For example, we encourage schools to maximise the number of pupils gaining 5 A\*-C grades at GCSE and until recently pupils could achieve this not by taking GCSEs but by taking “equivalent” qualifications. If these equivalent qualifications are easier to achieve for many students, this incentivises schools to encourage pupils to take these easier but less economically valuable qualifications. Further, there is now a qualifications market with a range of providers competing to offer their particular qualifications (GCSEs, BTECs etc) to schools and FE colleges. The income of these providers depends on selling their particular qualification to schools. Schools will obviously be keen to select qualifications that maximise their students’ chance of success. This creates an alignment of interests where providers and schools have an incentive to opt for easier options that may well not give students the rigorous cognitive skills that the labour market demands. The long run impact of this is that students take qualifications that do not have high value in the labour market. We need to recognise this problem and further regulation is needed to prevent even more “dumbing down”. The Coalition has started to tackle some aspects of this problem, by getting universities more involved in the design of A-levels for example and not allowing some qualifications to be classed as equivalent to GCSE, but more is needed on this issue.

At the same time, in a world in which skills are of increasingly variable quality within qualification-levels, it is all the more important that employers are able to distinguish good from bad (another point recognised by Wolf). Broadly speaking, there seems to be less variation in the quality of qualifications from Higher Education Institutions, perhaps in part because degrees still serve a strong signalling function, telling employers reliably who will be a good hire. But by contrast, within the lower qualification-levels, there is reason to believe that employers struggle more to navigate the terrain. There is more uncertainty, with fewer established, reliable indicators of quality making it hard for employers to tell which qualifications within each level deserve higher rewards. Going forward, we need a strong focus not just on raising the quality of low and intermediate level qualifications, but on ensuring that qualifications are clear and easy for employers to understand

### *Supply side blockages remain*

While much of the policy debate is concerned with the need to look beyond increasing the supply of skills, there are still areas where a more straightforward effort to boost supply is likely to yield strong returns.

### *Getting the most out of the schools system*

One obvious priority area is individuals with the lowest level of skills. Although the proportion of people with no qualifications has fallen dramatically in recent years, quite large proportions continue to have very low qualifications. This group includes those, for example, who have a single GCSE or indeed a number of very low grade GCSEs. Given the clear evidence that some of the lowest level qualifications acquired by UK workers have very little economic value, we have to face up to the fact that individuals with these low-level qualifications are effectively unqualified from the perspective of employers. They lack the skills that are in demand in the labour market and consequently they face an uncertain future doing low skill jobs with low wages.

The evidence suggests that the value of intermediate qualifications is more mixed. Given that our skills policy has encouraged acquisition of level 2 and level 3 qualifications irrespective of subject area, this is an issue that we should be concerned about. There is nonetheless a case for targeting certain areas where there seems to be a clear gap between supply and demand. Detailed analyses of

the rate of return to different types of qualification shows that the return to many STEM level 2 and level 3 qualifications is particularly high (Greenwood and Vignoles, 2011). Further, the returns to some specific types of skill, including numerical and analytical skill, are particularly high in the UK compared to other countries. Work by Denny et al. (2003) suggests that the return to even moderate levels of numeracy is higher in the UK than in other European countries. These high returns clearly suggest continued strong demand for such skills.

The challenge of delivering a workforce with better and more appropriate basic and intermediate skills is one that is best delivered by the school system. We know that improving individuals' skills levels becomes harder as individuals age and hence any serious attempt to upskill the workforce really does need to focus primarily on the school system and indeed the pre-school period. The imminent raising of the participation age to 18 provides us with an opportunity to upskill those who would otherwise have left full-time education at 18 and it is important that we grasp this window of opportunity. To do this, we need to be far more focused than we currently are on what students will be studying during the additional few years they will spend in education and training. Specifically we need to ensure that a) students undertake a meaningful amount of education and training up to the age of 18 and b) that the content of that education and training gives students valuable skills, particularly better literacy and numeracy.

### *Investing in the early years*

It is also important to see the debate about skills policy in the context of wider debates about education, where there is a growing appreciation that the accumulation of skills is a lifetime activity. We know from the work of James Heckman and others that investment in skills needs to start early and to continue throughout life to be effective. Hence a skills policy that tries to focus on upskilling the very least skilled workers in adulthood is not likely to be successful, particularly if the investments are relatively modest and short lived. In other words sufficient early investment is a necessary, if not sufficient condition, to ensure individuals have sufficient skill when they enter the labour market. This implies that a key plank of an effective skills policy would be to ensure that sufficient investment in children and young people to help them develop the necessary cognitive and non cognitive skills with which to enter the labour market. If we fail to provide individuals with sufficient skill in primary and secondary school, later investments to up-skill adults are much less likely to be effective. It is for these reasons that one of the implications of our analysis is that skills policy can only be a very long run solution to the problems faced by the LMI group, and certainly not a short term fix.

### *Up-skilling adults and the role of firms*

While the evidence suggests that the highest lifetime returns come from investing in the early years, skills policy cannot of course ignore the fate of those who are currently in the labour market and who have insufficient skill to do high return jobs. A number of policies have been introduced to up skill those who have already left the education system. Such policies usually consist of training provided by the state, in the case of unemployed workers, or the provision of subsidies for firms to train their workers. In the case of training schemes for the unemployed, there is at best mixed evidence of success. Indeed historically a number of training schemes for the unemployed appear to have had nil or even negative impacts on workers' earnings<sup>18</sup>. By contrast, as discussed earlier, firm provided training has been found to result in higher wages for individuals and higher productivity for

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<sup>18</sup> Dolton, P.J., Makepeace, G.H. and Treble, J.G., (1994). "The Youth Training Scheme and the school-to-work transition", in Oxford Economic Papers (Oxford), Vol. 46, pp. 629-649.

Friedlander, D., Greenburg, D.H. and Robins, P.K., (1997), "Evaluating government training programs for the economically disadvantaged", in Journal of Economic Literature (Nashville, Tennessee), Vol. 35, No. 4, pp. 1809-1855.

firms. Unfortunately much of this training is provided by firms to already relatively high skilled workers. So how can we persuade firms to train the less skilled workers in the LMI group?

In terms of policies that encourage firms to train, some have been very successful, such as apprenticeships (in most sectors) though these are largely focused on young workers who are at the point of entering the labour market rather than older workers. Other examples of policy attempts to up skill adults, such as the *Train to Gain* policy mentioned earlier, have been less successful. In the case of *Train to Gain*, an evaluation by the Institute for Fiscal Studies suggested that there was a lot of dead weight loss, whereby firms were being subsidised to undertake training that they would have done even in the absence of subsidy.<sup>19</sup>

As we have said, the state also encourages firms to train by providing tax relief on training costs. Estimates of the extent of this tax relief vary but a recent report from Howard Reed for Unionlearn suggests that the level of tax relief could reach £5 billion<sup>20</sup>. This is a significant level of investment by the state and given that firms tend to train workers who have initially higher levels of skill, this investment does little to improve the prospects of lower skilled workers. One could consider increasing tax incentives for firms to deliver training to their least skilled workers but as noted above in the context of *Train to Gain*, ensuring firm invest in their least skilled workers whilst also encouraging economically valuable training is a tricky balance to achieve.

As we have said, the priority going forward must be to ensure that policies to encourage firms to train avoid deadweight loss, and produce skills that are of genuine value for employees and employers. For the latter, we must provide firms with the freedom to provide the training they find valuable rather than forcing them to fund accredited qualifications which have low or minimal labour market value. We must also be realistic about the types of skills firms can and should provide their workers. There is no substitute for a good basic education and firms, it appears, are not willing to invest a lot to provide their workers with basic skills.

Revisiting the role of the individual in the training system is also merited. The history of Individual Learner Accounts, which provided individuals with an account that they could draw on to fund their own training, is somewhat chequered in the UK as the ILA scheme had problems with fraud. However, the principle of providing individuals with the means to make their own choices about education and training investments is a good one.

## Conclusions

As has been said, in the short run, skills policy is unlikely to be able to move large numbers of individuals currently in lower and intermediate skilled jobs to appreciably higher skilled jobs, particularly given the short term constraint on the number of intermediate jobs in the economy. Hence the LMI group is vulnerable, in that the skills route to improving their earnings (and therefore income) requires them first to take a substantial leap up in terms of cognitive and non cognitive skill levels and secondly for such an improvement in skill to provide them with access to a high return job. This would seem to imply that a skill based route out of the LMI group will be difficult in the short term, and there are likely to be better ways to affect the income of the LMI group directly rather than relying on the up skilling approach. For example, some kind of redistribution of income

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<sup>19</sup> Abramovsky, L., Battistin, E., Fitzsimons, E., Goodman, A. and Simpson, H. (2011), "Providing Employers with Incentives to Train Low-Skilled Workers: Evidence from the UK Employer Training Pilots," *Journal of Labor Economics*, University of Chicago Press, vol. 29(1), pages 153-193, 01.

<sup>20</sup> Reed, Howard, *Tax relief on training: investigating the options for reform*, Unionlearn (2011)

to narrow the gap between high and middle income households would undoubtedly be easier to implement, though not without its challenges.

While we are somewhat pessimistic about the role of skills policy in producing substantial income gains for the LMI group in the short run, we do not dispute that different skills policies across different countries can make a difference both to productivity levels and to the distribution of income within a country in the longer term. Some policies appear to be successful in raising the mean level of skill in an economy. The UK for example, is competitive internationally in terms of its mean level of skill and the skill levels of its elite.

Other countries have focused more on the distribution of skill, and by implication the resulting distribution of income. Some Scandinavian countries, such as Sweden, provide successful examples here. A number of countries have successfully focused on both achieving a high level of mean skill in their population and having a relatively narrow distribution of skill. This is perhaps best illustrated by Finland's success in international tests such as PISA, in terms of achieving a high mean score and a low standard deviation<sup>21</sup>. There does not in any case appear to be any evidence of a serious trade off between focusing on the mean level of skill in an economy and the distribution of skill (and hence income). Hence in the longer term we are more optimistic that careful design of skills policy can indeed make a difference to those living in low to middle income households.

Skills policy should therefore be seen as the long haul approach. On the basis of our analysis, it seems that the priority for LMIs needs to be to up skill this group in order to make them much more competitive with graduates, hence enabling them to access the fewer intermediate level jobs that are available. This will tend to reduce the wage gap between graduates and non graduates, thus reducing wage inequality.

It is important to acknowledge however, that the short political cycle does not make for good policy-making for which it is necessary to take a longer term view. As a result, in the UK and other countries, there has been a steady diet of education and skills initiatives, many of which represent the kind of short term tweaking that may not have any impact (or a negative one) in the longer term. Assuming education and skills policy can become somewhat less of a political football in the UK, there is certainly scope to design policies that are likely to improve the prospects of the LMI group increasing their skill levels and more specifically ensuring they have the skills most in demand in the labour market.

Drawing together the conclusions from the previous section, we suggest several major high-level priorities for skills policy over the next decade:

- We need to doggedly stick to the mantra that investments in the early years are the surest route to later achievement, and that school children need to acquire excellent cognitive and non-cognitive skills in school. There is no substitute for continuing to push for improvements in the education system.
- We need to shift our focus from quantity to quality. We need to understand why some of the level 2 and level 3 qualifications on offer do not apparently meet the needs of employers in some sectors, and ensure that employers understand the value of the qualifications people gain, and are able to distinguish good from bad.

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<sup>21</sup> See [http://www.oecd.org/document/2/0,3343,en\\_32252351\\_32236191\\_39718850\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/2/0,3343,en_32252351_32236191_39718850_1_1_1_1,00.html)

- We need to take a more targeted approach to raising the supply of skills, focusing on specific gaps and types of skill – such as basic and low level skills, and literacy and numeracy qualifications – rather than blanket increases in supply.
- We need to focus more attention on raising the demand for skills. To do so we need to ensure that the design of the skills system takes account of the need to involve employers and encourages demand. Potentially we might also look to a wider range of policies beyond the skills system, encompassing regulation, business support, industrial policy and more, though the wider issue of industrial policy is beyond the scope of this paper.
- We need to devise schemes that encourage both individuals and firms to train. Individuals and firms are likely to make better choices about the training they require, so in principle we would want to see more decisions made by individuals and firms. This might be achieved via more targeted tax subsidies or training levies on firms, though care is needed to avoid subsidising training that firms would have done already, or encouraging firms to undertake training that is not very valuable.
- We need to encourage training providers to focus on real outcomes for their students. For example, we could reward training providers on the basis of whether their students earn more or get better jobs.

## References

- Abramovsky, L., Battistin, E., Fitzsimons, E., Goodman, A. and Simpson, H. (2011), "Providing Employers with Incentives to Train Low-Skilled Workers: Evidence from the UK Employer Training Pilots," *Journal of Labor Economics*, University of Chicago Press, vol. 29(1), pages 153-193, 01.
- Autor, D., and Dorn, D., (2009), "This job is "getting old": measuring changes in job opportunities using occupational age structure", *American Economic Review*, 99(2): 45-51
- Autor, D., Levy, F., and Murnane, R., (2003), "The skill content of recent technological change: an empirical exploration", *Quarterly Journal of Economics*, 118(4): 1279-1333
- Autor, D., Katz, L., and Kearney, M., (2006), "The polarisation of the U.S. labour market", *American Economic Review*, 96(2): 45-51
- Chevalier, A., and Lindley, J., (2009), "Overeducation and the skills of UK graduates", *Journal of the Royal Statistical Society Series A*, 172(2): 307-337
- Crawford, C., Johnson, P., Machin, S., and Vignoles, A., (2011), "Social mobility: a literature review", paper for the Department for Business, Innovation and Skills, available online: <http://www.bis.gov.uk/assets/biscore/economics-and-statistics/docs/s/11-750-social-mobility-literature-review.pdf>
- Dearden, L., McIntosh, S., Myck, M. and Vignoles, A. (2002), "The Returns to Academic and Vocational Qualifications in Britain", *Bulletin of Economic Research*, 54, pp.249-274.
- Dearden, L., McGranahan, L., Sianesi, B. (2004), "An In-depth Analysis of the Returns to National Vocational Qualifications Obtained at Level 2", Centre for Economics of Education Discussion Paper No. 46.
- Dickerson, A. and Vignoles, A. (2007), "The Distribution and Returns to Qualifications in the Sector Skills Councils", SSDA Research Report No.21 Wath-upon-Deerne: Sector Skills Development Agency.
- Denny, K.J., Harmon, C.P. and O'Sullivan, V. (2003), "Education, Earnings and Skills: A Multi-country Comparison", *Institute for Fiscal Studies working paper W04/08*.
- Dolton, P.J., Makepeace, G.H. and Treble, J.G., (1994), "The Youth Training Scheme and the school-to-work transition", in *Oxford Economic Papers* (Oxford), Vol. 46, pp. 629-649.
- Eurofund (2011) *Shifts in the job structure in Europe during the Great Recession*, <http://www.eurofound.europa.eu/pubdocs/2011/41/en/1/EF1141en.pdf>.
- Friedlander, D., Greenburg, D.H. and Robins, P.K., (1997), "Evaluating government training programs for the economically disadvantaged", in *Journal of Economic Literature* (Nashville, Tennessee), Vol. 35, No. 4, pp. 1809-1855.
- Greenwood, C. and Vignoles, A. (2011) *The labour market value of STEM qualifications and occupations: an analysis for the Royal Academy of Engineering*. [http://www.raeng.org.uk/news/releases/pdf/The Labour Market Value of STEM Qualifications and Occupations.pdf](http://www.raeng.org.uk/news/releases/pdf/The_Labour_Market_Value_of_STEM_Qualifications_and_Occupations.pdf)
- Goos, M., and Manning, A., (2007), "Lousy jobs and lovely jobs: the rising polarization of work in Britain", *The Review of Economics and Statistics*, 89(1): 118-133
- Goos, M., Manning, A. and Salomons, A., (2009), "The polarization of the European labour market", *American Economic Review*, 99(5): 58-63
- Green, F. and Zhu, Y., (2010), "Overqualification, job dissatisfaction, and increasing dispersion in the returns to graduate education", *Oxford Economic Papers*, 62: 740-763
- Holmes, C. and Mayhew, K., (2011), "Room at the top – and the bottom, too: the winners and losers in the hourglass labour market", paper presented at the Education and Employers Taskforce Research Conference, Warwick University, October 12<sup>th</sup>.

Keep, E. and Payne, J. (2011) "One Step Forward, Two Steps Back: Skills Policy in England under the Coalition Government", SKOPE 2011.

Mcintosh, S. (2006). [Further Analysis of the Returns to Academic and Vocational Qualifications](#), *Oxford Bulletin of Economics and Statistics*, Department of Economics, University of Oxford, vol. 68(2), pages 225-251, 04.

Plunkett, J., (2011), Growth without gain?: The faltering living standards of people on low-to-middle incomes, London: Resolution Foundation.

Walker, I. and Zhu, Y. (2008) "The college wage premium, over education and the expansion of higher education in the UK", *Scandinavian Journal of Economics*, vol. 110(4), pp.695-709.



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