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# The UK skills system: how well does policy help meet evolving demand?

Future of Skills & Lifelong Learning

Evidence Review

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# The UK skills system: how well does policy help meet evolving demand?

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# Executive Summary

The general direction of skills policy in the UK over the recent past has been to create a market for training in order to improve the degree to which the skills people acquire are matched to those that the economy demands. A recognised weakness of the training market, certainly over the 1990s and early 2000s, was that it gave too much influence to training providers.

By placing employers increasingly at the centre of the skills system by granting them increased influence over the design and structure of various vocational qualifications the skill system will, policy makers believe, become more effective in responding to skills demand. This should, all other things being equal, build the demand for skills. Requiring employers to meet a greater proportion of the overall cost of initial vocational education and training will provide them with a financial incentive to ensure that the skills system meets their needs.

The critical issue is whether the push to create a more employer owned skills system will be able to drive up the demand for skills. The formidable problem the skills system has had to address over recent decades is that of under-investment in skills. Investments may well have increased over recent decades but this has been largely supply-side driven and questions have been raised about the economic value of the courses and qualifications that have been delivered.

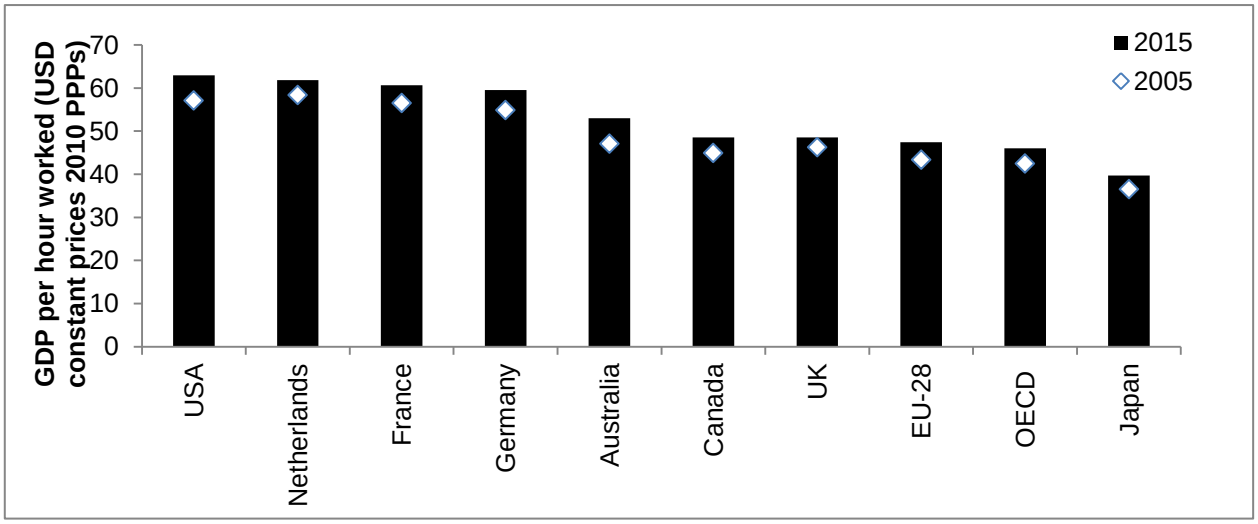
Driving up the demand for skills from employers – and individuals – to a level that is commensurate with those countries with higher levels of labour productivity is a long-standing issue with which skills policy has grappled. Over the past 40 years, the results have been mixed. The signs are that at the current level of demand, the skills system is able to supply the skills needed. There are relatively few skill shortages in the UK economy.

How to ratchet up the demand for skills from employers and individuals has proved to be a formidable task facing policy makers. It is readily apparent that skills policy alone cannot fully address this issue. Skills policy is only one part of a strategic mix that includes policies aimed at innovation, enterprise, regional growth, etc. But should it be possible increase demand, it will be possible to gauge the extent to which the more demand-side oriented skills system is able to respond.

# 1. The goals of the skills system

One might begin by asking: what is the purpose of the skills system and skills policy? Primarily it is to boost productivity, however defined, upon which the UK's prosperity ultimately depends. There is a wealth of evidence that points to rising investments in education and training over recent decades bringing about a productivity dividend. The economic evidence points unequivocally to increased investments in skills and improved productivity growth going hand-in-hand (Siansei and van Reenen 2003, Harris et al 2005, Gambin 2009, Holland et al 2013, van Reenen 2013). During the mid-2000s there was a view that the UK's productivity – measured by output per hour worked - was rising at a faster rate than in counties such as France, Germany, and the Netherlands (Learning and Skills Council 2006a). These were all countries with which the UK had historically lagged behind in the competitiveness stakes. Rapidly rising participation rates in post-compulsory education and training, especially in higher education, were seen to be improving the stock of human capital at a relatively fast rate which, other things being equal, boosted productivity growth (Learning and Skills Council 2006b). Following the economic crisis in 2007/8, productivity growth would appear to have slowed more in the UK than in many other countries such that output per hour worked is now lower than in countries such as the Netherlands, France, and Germany (see Figure 1).

**Figure 1: Output per hour: a comparison of the UK and other major economies**




Source: OECD productivity statistics

Note: 2015 data for Japan is an OECD estimate; data for OECD is for 2014

In the period before the economic crisis, the improvement in the UK's stock of human capital was estimated to account for around 20 per cent of total labour productivity growth. Following the crisis, overall growth in labour productivity has been, on average, negative, mainly because of declining total factor productivity. In much of the debate about the UK's productivity puzzle, skills supply has tended not to figure prominently. Instead, discussion has tended to focus on cyclical factors resulting from weak aggregate demand and more persistent ones that have disrupted the country's capacity to produce goods and services (Barnet et al 2014). In relation to the former, this includes holding on to resources, which are engaged in relatively unproductive activities, in anticipation of an improvement in demand conditions. With regard to the latter, attention has focused on, amongst other things, both the difficulties in accessing capital and the uncertainties about future demand conditions which have combined to dampen

levels of investment and thereby productivity growth. Yet the evidence indicates – and it can be placed no more strongly than that - that skills continued to make a positive contribution to the growth in labour productivity in the post-crisis period. In other words, without continued improvements in the skills of the workforce, labour productivity would have fallen even further (Anzar et al 2015).

But this then begs the question whether the skills system, in its current configuration, has failed to deliver a sufficient boost to the economy? It may have slowed the pace at which productivity growth declined, but could it have reversed it? It is perhaps worth stating at the outset that the relationship between skills and productivity is a complex one that is not fully understood. It is also noteworthy that the barometer often used to measure a country's standing in the skills stakes – the OECD Survey of Adult Skills, PIAAC – reveals that countries with higher levels of productivity than the UK score lower on the PIAAC literacy and numeracy measures (e.g. the USA, France, and Germany) (Wheater et al 2013).

# 2. A long running problem of increasing demand for skills

A distinction is usually made between general or academic education and initial vocational education and training (VET). The skills system tends to be associated much more with the latter than the former. The history of VET in the UK is one of anxiety, stretching back at least 150 years, over the VET system's inability to sufficiently deliver the skills a successful economy required. As long ago as 1882, the Royal Commission on Technical Education (the Samuelson Report) diagnosed relatively poor technical skills development as a cause of the UK's eroding competitiveness (Harbone 2010). Successive government reports over the course of the 20th century bemoaned the failure to sufficiently develop technical skills amongst school pupils. The Spens Report in 1938, for instance, noted that clever pupils preferred to take the academic route through grammar schools so that they could gain access to professional occupations. The two-tier system of grammar schools, with an academic bent and secondary modern schools with a vocational and technical one, effectively confined VET to being 'second best'. Not that much technical or vocational education was necessarily taking place in secondary modern schools.The Newsom Report in 1963 drawing attention to the fact that these schools provided remarkably little of either. Even with the introduction of comprehensive schools in the 1970s, vocational education tended to be limited to woodwork, metalwork, and domestic science. With little in the way of further education being available, if pupils failed to acquire vocational skills in school, then their chances of gaining them thereafter was largely dependent upon provision by their employer. This was not happening on a sufficient scale.

During the 1970s theManpower Services Commission (MSC) sought to tackle the long running lack of investment in skills by both employers and individuals. Under-investment was seen as driving down the competiveness of the UK relative to countries such as the USA, Germany, and France. Many countries had developed strong apprenticeship systems in the post-1946 period, however by the 1960s and 1970s they were offered by few employers in the UK and taken up by few young people leaving compulsory education. Apprenticeships were time served and often used to delay the time at which a young person would move over from apprenticeship to adult wage-rates. So, from the 1970s onwards, the MSC set in motion a radical overhaul of the skills system (Haxby and Parkes 1989).

A range of vocational qualifications were introduced that could be delivered by further education (FE) colleges. This meant that vocational education and training was no longer as dependent as it once was upon employers to deliver it. Moreover, these vocational qualifications would be competence based – as soon as someone could demonstrate their competence they would be accredited – thereby potentially increasing the efficiency with which skills were delivered. By publicly funding VET in FE, employers were incentivised to engage with the new system since they were potentially being offered a 'free good'. It was this development more than any other that saw the provision of apprenticeships decline even further during the 1970s and 1980s.

Concerns persisted that the skills system was not sufficiently attuned to delivering those skills that would drive up competitiveness and provide young people with employment. During much of the 1980s youth unemployment was a persistent problem. In 1994, Modern Apprenticeships were introduced. Government had become convinced that by combining training with work that included the award of an NVQ, an improved system of VET would be available for young people. By including employers in the mix there was a better chance that the skills apprentices acquired would be closely matched to those sought in the labour market. And by creating more of a market for the supply of training, the quality of provision would be improved.

During the final decades of the 20th century, substantial increases in levels of participation in VET by both learners and employers were observed. Demand – in the sense that skills supply was responsive to a real need in the economy - remained a concern for policy makers. Damning the VET system as one largely dominated by the interests of training providers, the Leitch Review in 2006 urged a more rapid shift to a demand driven VET system (HM Treasury 2006). Dissolving much of the VET planning infrastructure and placing funding increasingly in the hands of employers and learners was Leitch's chosen of means of achieving this end. But the government was not quite ready to fully bestow the system to the market. A large part of Leitch's demand led system comprised targets for skills and qualifications centrally determined by the state. There was a strong sense that the overall level of skills attainment needed to be ratcheted-up and this would be dependent upon public funding of a range of supply-side measures (i.e. Train to Gain and, more generally, through training providers in FE) (Keep 2006). Nevertheless, the longer-term plan was based on equipping employers and learners with information about the value attached to various qualifications and training programmes, as well as the quality of training provision, and on the basis of this they could make informed investment decisions. Even though the system was moving in this direction prior to Leitch, it was given more emphasis afterwards. Employers in particular were to be placed increasingly centre-stage: they would be more involved in the design of vocational qualifications (c.f. Trailblazers – employer-led groups developing apprenticeship standards) and they would be given more purchasing power in their dealings with training providers (c.f. employer routed funding – i.e. by employers co-investing in training). In other words, employers would have a much greater say in the design and structure of the Apprenticeships they would deliver to ensure that they met employer demand for skills. But in return they would be expected to meet a greater share of the overall cost of the apprenticeship training., the rationale being that if employers have more of a financial stake in the training they are investing in and delivering, then they are more likely to ensure that it meets their needs (Banks 2010). Whether employers will be willing to bear a greater share of the overall cost is an interesting question. Employers are not always aware of the amount of public subsidy they receive when they take on apprentice so they typically have little idea of what co-investment might look like in practice (Hogarth et al 2014, Keep 2015).

Creating a market for VET has been a long-term goal of skills policy since at least the 1980s. This requires individuals and employers to regard skills as an investment good. Consumer theory indicates that purchasers will be more likely to make rational choices if they bear the cost of any choice. But if they are to make that choice they need a full set of information about the likely future returns on any investment. Hence the emphasis placed on providing labour market information (LMI) on the returns to investing in various vocational qualifications and skills, although this is far from straightforward. The Wolf Review of vocational qualifications in 2011 indicated that the economic value delivered by many vocational qualifications – especially at Level 2 – was questionable, but that the returns to apprenticeship training were relatively good (Wolf 2011). From 2015 onwards, Apprenticeships have increasingly been regarded as the preferred means of delivering initial VET.

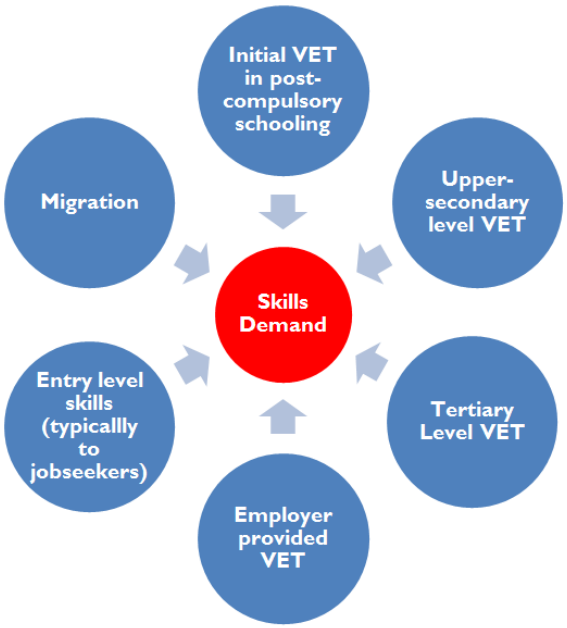
# 3. The skills system today

By the second decade of the 21st century, all the pieces were in place that the MSC initially envisaged when it commenced its programme of reform in earnest in the 1970s (Haxby and Parks 1989). Frameworks for qualifications and training are quality assured by the State, but which qualifications employers and learners choose to invest in is left to them. The assumption is that employers and learners, as 'purchasers' of training are reasonably well informed about the training products available to them. Furthermore, as they will be investing their own funds in training, they will ensure that their choices are economically rational ones. The supply of labour market information to would-be consumers of VET has improved substantially such that information on the returns to studying various qualifications and courses is increasingly available (for example see LMI for All).

Historically, there has been a tendency to see vocational education and training – or the skills system – purely with reference to the compulsory and FE systems. For many years there has been a propensity for higher education institutions (HEIs) to increase the vocational component of many of their courses (Gambin et al 2015). And the intention is to increasingly supply apprenticeships at a level equivalent to the courses currently provided in HE. The result is that HE is becoming more vocationally oriented. Immigration too proves to be an important supply of skills. Today one might conceive of the skills system as outlined in figure 2.

The foregoing review suggests that over time the skills system has developed to become more demand oriented and the supply side has become more varied with respect to the type of provider and the level at which they are delivering VET.

**Figure 2: The UK Skills System in 2016**



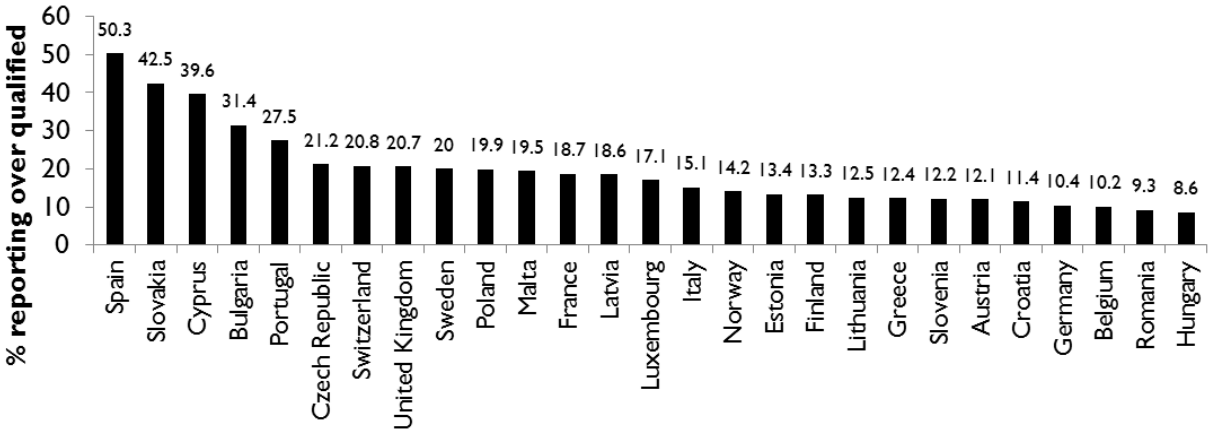
# 4. Is supply meeting demand?

A simple measure of whether supply is keeping pace with demand is to assess the degree of skills mismatch in the labour market – i.e. the extent to which there are skill shortages or skills surpluses. The National Employers Skills Survey 2015 demonstrated that there were 209,000 vacancies that remained unfilled because of a shortage of applicants with the skills, qualifications or experience the employer required, up from 146,000 in 2013. This figure however still represents less than one per cent of overall employment in the UK.

Skill shortages and surpluses are difficult concepts to measure and are not fully captured by employer surveys (Vivian et al 2016). A recent study using a multi-dimensional measure of skill mismatches based on looking at employer reports of mismatches, movements in wage levels, etc. revealed relatively few skill shortages in the economy (Gambin et al 2016). It showed that, in total, 2.6 million people worked in skill shortage occupations (approximately 10 per cent of all employment). At any point in time during 2013, there were estimated to be 47,000 vacancies in these occupations, 25,600 of which were reported as hard-to-fill by employers, and around 23,500 as being hard-to-fill because applicants lacked the skills the employer sought. The total number of vacancies here can be taken as an upper bound on the number of jobs that could potentially be filled if the match between the supply of and demand for skills was improved. The 23,500 skill shortage vacancies would indicate a lower bound on the increase in filled jobs that could arise.

One might infer from the above that skills supply is keeping pace with skills demand. In many respects this is so. But there is also a suspicion that there may also be skills surpluses arising. These are exceptionally difficult to measure since a person may be over-qualified to carry out the task required of them in their current job but this may well be part of their transition to a job commensurate with their skills. Accordingly, one has to take measures of skills surpluses with a large pinch of salt. That said, the evidence based on people reporting whether or not they are over-qualified to undertake the tasks required of them in their current job shows that the UK has a relatively larger percentage of employees reporting this to be the case (see figure 3) compared to a number of European countries.

**Figure 3: Percentage of Employees Reporting that they are Over-qualified to Carry out their Current Job**




Source: European Labour Force Survey (2014). Note: Self-declared over-qualified employees as percentage of the total employees – all education levels / 15-64 year olds.

# 5. Breaking out of the low-skills equilibrium

Going back to the 19th century, it was noted that the 1882 Samuelson Report regarded the VET system as the economy's Achilles heel. Today, Germany, as in 1882, has higher levels of productivity than the UK, as do many other competitor nations (see Figure 1 above). Substantial gains have been achieved in VET participation rates, bringing about higher levels of educational attainment in the workforce, but this does not, at present, appear to have translated into gains in relative productivity for the UK economy.

The reason for this may relate to the notion that there is a low-skill equilibrium in the UK (i.e. a situation where an economy becomes trapped in a vicious circle of low value added, low skills and low wages) (Finegold and Soskice 1990). This idea was first aired in the 1980s – somewhat speculatively – but there remains a concern that the level of demand for skills is sub-optimal. If employers in the UK were to raise their performance to the level of their counterparts in countries with relatively high levels of productivity, then the level of skill demand would be higher (Green 2013).

From a skills perspective, it may be that the skills system insufficiently incentivises employers (and individuals) to invest in training. One has to be cautious here. Many companies report little or no demand for skills or training because their product market positions are such that their demand for skills is weak. Accordingly, their lack of demand for skills may be regarded as being perfectly rational. Nevertheless, market failures may occur which drive down skill demand. These arise because of issues related to financing VET or, lack of or poor quality information about the potential returns from any investment. Recent research has illustrated the way in which the cost of training can be a barrier to training where the employer encounters a large net cost at the end of the training period. Unless employers are assured that they can appropriate a return on their investment in skills they may be unlikely to make that investment (Gambin and Hogarth 2015). A shift to employer routed funding will place more of the overall cost of training on the employer, though there is the possibility that this will allow employers to reduce the overall total cost of training such that they will pay less under the new system compared with the old (Hogarth et al 2014). There is the possibility that employer routed funding, because of its requirement for employers to make a monetary contribution to meeting the costs of the training provider, could drive down employer demand for publicly funded VET. The introduction of the Apprenticeship Levy in April 2017 that will require all employers operating in the UK, with a pay bill over £3 million each year, to make an investment in apprenticeships (See: https://www.gov.uk/government/publications/apprenticeship-levy-how-it-will-work/apprenticeship-levy-how-it-will-work), might offset this to some extent. The introduction of the Levy is interesting. One may regard it as a means of passing on the cost of training from the State to employers (and their employees) which, from an equity perspective, may be fair enough given that employers are one of the principal beneficiaries of publicly funded programmes such as apprenticeship. It also potentially solves the free-rider problem that is a disincentive to employers investing in training. But the levy is a supply-side measure writ large. It compels companies to invest in apprenticeships – regardless of their skill demand – if they want to recoup their levy payment. Whether this runs with the grain of policy over the past few decades is a moot point.

If the above reveals anything, it is that skills policy per se has struggled to increase the demand for skills. The point needs to be made strongly that driving up the demand for skills is not just about skills policy. However much importance may be attached to VET policy as a driver of economic growth, there is a need to regard it within a wider macroeconomic perspective. Hinging too much on VET as a driver of competitiveness, without equal emphasis being placed

on industrial strategy, innovation policy, etc., is always likely to bring about a state of affairs where VET policy looks to be sub-optimal in some way. Innovation policy, industrial strategy and such like affect the demand for skills. If these are sub-optimal in some way, then even the best VET system in the world will struggle to drive up competitiveness. It will simply mean that the matters may be less worse than they otherwise would be. In addition to demand side factors, there is the supply to consider as well. Increases in labour and skill supply will, other things being equal, increase the propensity to use labour rather than substitute it with automation. The introduction of the national minimum wage – especially the recent rate hike - may drive up the demand for skills insofar as there is tentative evidence that firms respond to exogenously imposed increases in wage rates by raising their productivity levels (Riley and Bondibene 2013).

Market failures may still lurk in the VET system. It is more likely that the current equilibrium of the UK economy is such that the VET system is able to satisfy skill demand. Maybe, the emphasis should be on the way in which VET policy intermingles with other policies that affect productivity and competitiveness. In other words, the provision of publicly funded skills training needs to be tied to other policies that look to drive up levels of innovation, enterprise, etc. There have been some failures here (c.f. Training to Gain) (National Audit Office 2009), but successes too, such as linking public procurement to skill investments by firms (BIS 2010). It needs to be borne in mind that the primary purpose of skills policy, from an economic perspective, is to drive up prosperity for all. Skills policy has come a long way over the last twenty to thirty years, but the longstanding problem of being able to generate a higher level of demand for skills remains. It might be unrealistic to expect skills policy, in isolation, to increase the demand for skill. But it is evident that unless the country is able to increase the demand for skills, its productivity performance will remain sluggish and the gap with the best performing economies will widen.

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