

**Raising productivity by
improving higher
technical education:
Tackling the Level 4 and
Level 5 conundrum**

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Occasional Paper 11

About the Author

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Foreword

Nick Hillman, HEPI Director

In the somewhat obscure terminology of qualifications, A-Levels are Level 3 and honours degrees are Level 6. In the land between, there is a host of vocational and sub-degree qualifications. Some of them are relatively well known and respected, such as Higher National Certificates (HNCs) and Higher National Diplomas (HNDs) and Foundation Degrees. Others have less purchase with employers or the public at large.

The confusion and complexity of Level 4 and Level 5 qualifications stands in stark contrast to the situation in countries with a clearer vocational education system, such as Germany. Policymakers are convinced something must be done. They talk of more higher-level apprenticeships, more two-year degrees and more earn-as-you-learn qualifications. But, while they are right to question the status quo, their alternatives are sometimes vague to the point of non-existence and risk complicating a landscape that is already confusing.

This author of this pamphlet, Dr Scott Kelly, explains the problems before proposing some constructive ideas for the future. These are designed to enmesh employers properly in the skills system without harming the areas that are working. As befits an economic historian, he searches for areas of the skills system that do work and recommends their expansion

and promotion to deliver a new framework for delivering the technician-level skills that employers want.

Dr Kelly's solutions benefit from his long experience in both further education and higher education. He has lectured at the London School of Economics and New York University in London and was the key adviser to John Hayes when he was the Minister for Further Education, Skills and Lifelong Learning (2010-2012) and the Shadow Minister for Lifelong Learning, Further and Higher Education (2007-2010).

Public spending on further education, skills and vocational training is under threat. In 2014, Vince Cable, then the Secretary of State for Business, Innovation and Skills, said his civil servants had asked him 'why don't you just effectively kill off FE. Nobody will really notice.'¹ It is a testament to the wisdom of the proposals outlined in the following pages that they would strengthen the sector and, by embedding employers more deeply within it, make killing it off unthinkable.

Foreword

Rod Bristow, President of Pearson in the UK

It's a pleasure for us at Pearson to have worked in partnership with HEPI, and of course Dr Scott Kelly, on this excellent report.

In this pamphlet, Scott outlines the problems we face in rebalancing our country's skills profile, using rock solid evidence and strong international comparisons. Having identified the problems, Scott has set out a positive vision for how we achieve that rebalancing and contribute to the UK's long-term competitiveness. In doing so, he has made a powerful case for the foundations needed for a better higher-level technical education pathway.

The case made here for increased participation at Levels 4 and 5 is compelling. However as I write this, we are aware of the significant threat to what is sometimes termed the adult skills budget, but is in fact a vitally important pathway for those young people who have not attended university but want to acquire the technical skills the country badly needs. So how do we win the argument that this expansion should form a critical part of our post-19 education landscape? Can we build a sustainable model for growth at Levels 4 and 5?

While the structural changes proposed in this paper are persuasive, it is important to challenge them – for my part I

am keen to explore how the proposed new agency could bring in employers without inadvertently jeopardising the standing of Levels 4 and 5 within higher education, since a significant part of their value for a learner lies in their ability to provide a stepping stone to a technical degree. The changes we seek should always improve the standing of these vital skills, not reinforce any negative stereotypes about vocational qualifications versus academic degrees.

Questions of structure and incentive are hugely important, but at the heart of this conundrum is an unarguable fact: our economy needs more technically-qualified employees. We will not succeed without them. Recent analysis by Baroness Alison Wolf and Lord Sainsbury's Gatsby Foundation shows we are heading for a precipice, and that failure to act will damage our productivity. Evidence from the CBI and the experience of both large and small employers up and down the country support that conclusion.

In the end, it may be the demand from learners themselves that proves the most convincing evidence of all. Ever since tuition fee charges were floated by Ron Dearing in his 1997 report, we have heard predictions that the end of the full-time three-year degree was imminent, whereas demand now is higher than before the £9,000 annual fee cap was introduced. That is because students rightly see a degree provides a good return on investment, but high returns from general degrees are not sustainable. The market will inevitably segment, and the demand for shorter technical programmes that cost less

in time and money, and lead not only to a good job but to a higher technical degree too, will grow significantly provided the supply is there to meet it. And, given the perennial concerns expressed about over-qualified but unemployable graduates in countless newspaper columns, young people qualifying as high-level technicians and technologists are likely to be some of the most sought-after employees in the country when they finish their course.

Our research shows that parents and students want education, above all else, to prepare young people better for the world of work. As this paper makes clear, higher-level technical qualifications – including Pearson’s HNCs and HNDs as well as some Foundation Degrees – are part of the critical national infrastructure we need to boost our country’s economic prospects.

This paper is an excellent contribution to a vital debate. We are indebted to Scott Kelly and our colleagues at HEPI for advancing this important argument.

Executive Summary

A lower proportion of people in England and Wales have technical and professional qualifications than in other advanced economies. There is increasing awareness across the political spectrum that the lack of advanced technical skills is having a detrimental impact on the British economy. Yet, despite the genuine efforts of recent governments to increase the number of people studying for work-related qualifications at Levels 4 and 5, progress has been slow.

There are no unique characteristics of the British economy that account for the lack of people qualified to Levels 4 and 5. Technical and profession qualifications at these levels are valued in the market. The shortage of people with appropriate qualifications has resulted in the inappropriate deployment of graduates in the workplace. The shortage of suitably-qualified technicians provides at least part of the explanation for Britain's poor productivity.

The 2015 election manifestos attested to the commitment of all the main political parties to increase sub-degree provision either through new Technical Degrees, National Colleges or the continued expansion of higher apprenticeships. Though welcome, these prescriptions were vague and did not all address the underlying reasons for the current lack of provision.

Solving the Level 4 and Level 5 conundrum requires a concerted policy effort based around three clear principles:

- there should be a well-defined set of institutions whose core mission is based around technical and professional qualifications;
- work-oriented qualifications at higher levels should all be validated and funded by the same processes; and
- public policy should acknowledge and address the barriers to employer engagement.

In practice, this means comprehensive reform of the way technical and professional qualifications are accredited and funded. A clear distinction must be made between work-oriented qualifications linked to specific job roles and qualifications primarily intended as stepping-stones to first degrees. The former should be accredited and funded by a new body, while the latter should remain the responsibility of HEFCE.

The further education (FE) sector is ideally placed to play a larger role in the provision of technical and professional qualifications but expansion must be dependent on links to local employers and on teaching that combines pedagogical expertise with knowledge of current practice in the workplace. Learner numbers should ultimately be determined by business need, with all courses requiring an element of genuine workplace experience as a condition of funding. Policy should enable FE to play a greater role in the provision of higher-level training:

- The Institute for Further Education has recently been granted a Royal Charter. The Government should give its full support to the new quality assurance scheme for FE, which could form the basis of accrediting colleges that can design and deliver their own technical qualifications at sub-degree level.
- People with recent industry experience should be encouraged into teaching by removing some of the qualification barriers to becoming a part-time teacher and by establishing a scheme similar to Teach First that supports qualified and experienced technicians who want to shift to teaching.

A new system for accrediting qualifications should embrace existing well-established brands such as Higher Nationals but should also give scope to accredited higher education institutions, FE colleges and private training providers to design and deliver their own qualifications if they can demonstrate sufficient rigour and industry engagement. Learner numbers should not be used as a proxy for market value as some economic sectors require small numbers of technicians with niche qualifications related to specific job roles.

Employers are often alienated by overlapping, *ad hoc* and piecemeal initiatives to fund and accredit work-related education, such as the Employer Ownership Pilots and the Trailblazer programme for apprenticeship standards. Surveys show that what employers really value is both a formal role in determining the content of qualifications and a stable policy

framework. Formal industry representation should be intrinsic to a new system for accreditation and funding, leading to the creation of strong and stable institutional anchors for business engagement.

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Introduction

1. It is widely accepted across the political spectrum that one of the most serious weaknesses in England's post-compulsory education system is the paucity of technical education at sub-degree level, in particular at Levels 4 and 5. As the former Business Secretary Vince Cable noted in a thoughtful speech in 2014: 'High-level vocational training has fallen through the gap between our HE and FE systems ... relative to other countries, we are very behind where we need to be.'²

2. Although this issue has recently risen up the political agenda, it is hardly a new problem. Half a century ago the then Secretary of State for Education and Science, Tony Crosland, highlighted exactly the same issue during his speech at what is now the University of Greenwich, which ultimately led to the establishment of polytechnics:

*We shall not survive in the world if we in Britain alone downgrade the non-university professional and technical sector. No other country in the Western world does so ... Let us now move away from our snobbish caste-ridden hierarchical obsession with university status.*³

3. Yet, fifty years on, higher technical education in England continues to stubbornly refuse to take off. According to the Organisation for Economic Co-operation and Development (OECD), England has 'too little vocational provision at post-secondary level in comparison with many other countries.'⁴ This lack of growth cannot simply be attributed to a paucity of state

support – numerous official initiatives, from Foundation Degrees to Higher Apprenticeships, have so far failed to provide a step change in those studying towards technical qualifications.

4. This failure to make a breakthrough has come as a surprise to some who thought the introduction of tuition fees would lead more young people to consider options other than a three-year residential degree. It was thought that the prospect of larger debts might push some towards an explicitly vocational course of study combined with employment. As the former Secretary of State for Innovation, Universities and Skills, John Denham, pointed out in a RSA lecture in January 2014:

Even the most fervent advocates of Labour's 50 per cent target would surely be surprised that it has been achieved almost entirely through the most expensive mode of higher education – the three year degree studied away from home. Part-time education is collapsing. The number of two year honours degrees has barely changed. ... Higher education is becoming more a one size fits all approach.⁵

5. The failure of higher technical qualifications to take hold in England raises some fundamental questions:

- Do numbers remain low largely because Levels 4 and 5 fall between the gap between HE and FE, as Vince Cable and others have argued?
- Is the continued preference for three or four-year residential degrees explicable in terms of cultural preferences and the

relative ease with which universities can extend this type of provision?

- Or is the case for the greater provision of sub-degree technical education overstated, with low levels of participation actually accounted for by a lack of employer demand and genuine economic need?

Levels 4 and 5 as described in the former National Qualification Framework (QCF)

Level criteria	Examples
<p>Level 5 qualifications recognise the ability to increase the depth of knowledge and understanding of an area of work or study to enable the formulation of solutions and responses to complex problems and situations. Learning at this level involves the demonstration of high levels of knowledge, a high level of work expertise in job roles and competence in managing and training others. Qualifications at this level are appropriate for people working as higher grade technicians, professionals or managers.</p>	<ul style="list-style-type: none"> • HND • Level 5 Professional Diploma • Level 5 Professional Certificate • Level 5 Professional Award • Diploma of Higher Education • Foundation Degree
<p>Level 4 qualifications recognise specialist learning and involve detailed analysis of a high level of information and knowledge in an area of work or study. Learning at this level is appropriate for people working in technical and professional jobs, and/or managing and developing others.</p>	<ul style="list-style-type: none"> • HNC • Level 4 Professional Diploma • Level 4 Professional Certificate • Level 4 Professional Award • Certificate of Higher Education

1: Is there really a shortage of Level 4 and 5 technical skills?

6. While the desirability of greater numbers of people studying towards sub-degree level qualifications is open to debate, what is not disputed is that England has a lower proportion of people qualified at this level than most other advanced economies. According to the OECD, fewer than 10 per cent of the adult population aged between 20 and 45 have professional education and training qualifications. This compares to over 15 per cent in the United States and Australia and almost 20 per cent in Germany.⁶

7. What is more difficult to explain is why England is such an outlier. As the authors of a recent OECD review of 'skills beyond schools' in England note, 'England's labour market has few distinctive features that could explain the relative lack of individuals in mid-level post-secondary programmes relative to many other OECD countries.'⁷

8. One possible explanation for this deficiency is the structure of the private sector and, in particular, average business size, which might account for the lack of business engagement in job-specific technical training. Since the 1980s there has been a dramatic growth in the number of registered businesses in the UK, from 2.4 million in 1980 to 4.9 million in 2013. Employment growth has focused on smaller businesses, with small and medium-sized employers (SMEs – businesses employing fewer than 250 people) employing 14.4 million people in the UK, almost 60 per cent of all private sector

employment. Small businesses alone (with fewer than 50 employees) account for 47 per cent of private sector employment.⁸ It is possible that SMEs lack the resources or the capacity to provide training or to work in collaboration with institutions that could help meet their skills needs. However, the trend towards employment growth being focused in smaller businesses is also to be found in countries with higher incidences of mid-level qualifications. In Germany a similar proportion of the workforce work in small businesses to that found in the UK.⁹

9. The mid-tier of the German economy – known as the *Mittelstadt* – is often lauded for its investment in capital and training. However, the value of medium-size manufacturing and service companies in the UK has been estimated to be greater to the UK economy than that of Germany: middle-market companies with a turnover of more than \$50 million and less than \$500 million make up 17.2 per cent of economic activity in the UK compared to 16.3 per cent in Germany.¹⁰

10. While the structure of the British economy does not provide a ready explanation for the current paucity of technical and professional qualifications, arguments in favour of increasing their number are often supported by predictions of future need. For example, the European Union forecast that nearly two-thirds of overall employment growth between 2010 and 2020 would be in the ‘technicians and associated professionals’ category. England is among those countries identified as being likely to have significant growth in

demand for these skills.¹¹ Similarly, the Department for Business, Innovation and Skills has estimated that the British economy will require 830,000 new engineers over the eight years – simply to replace those reaching retirement age.¹²

11. Predicting future skills needs, like any kind of forecasting, is an uncertain business. Moreover, if the British economy is currently functioning without similar numbers of workers educated to Levels 4 and 5 to that found elsewhere, is this really likely to prove problematic in the future? A compelling argument in support of more sub-degree level provision requires evidence that a shortage of supply of skills at these levels is already doing damage to the British economy.

12. There is good evidence that higher-level technical qualifications have strong labour market returns, particularly compared with vocational qualifications at lower levels. There is a significant increase in employment rates between those qualified at Level 4 compared to Level 3. Those completing Level 4 qualifications achieve an immediate 4 per cent earning premium, which increases to 12 per cent seven years after completion.¹³

13. There is also evidence of significant skills shortages in England resulting from a lack of high-level technical education. While successive National Employer Skills Surveys (NESS) have found only 5-6 per cent of establishments reporting skills-related hard-to-fill vacancies (skills shortages), data from the 2007 survey reveals that over a third (34.3 per cent) of vacancies resulting from skills shortages

are in occupational groups associated with technician-level skills.¹⁴

14. While NESS data also suggest that most firms are not experiencing significant problems resulting from a lack of skills amongst current employees (skills gaps), more detailed research has suggested that employers in sectors requiring high-level technical skills, such as telecoms, vehicle maintenance and repair and mechanical engineering, do face significant skills gaps resulting from incomplete technical skills.¹⁵

15. That there is a mismatch between qualification levels in England and the structure of the labour market – with a large proportion of the workforce only qualified to low and intermediate level, Levels 2 and 3, and a similarly high proportion qualified to degree-level, Level 6, with relatively few at Levels 4 and 5 – is substantiated by how skills are deployed in the workplace. Evidence suggests that skills are often inappropriately deployed, with many graduates undertaking work not requiring degree-level qualifications. Research for the Gatsby Foundation has found that of the workforce employed in science, engineering and technology (SET) occupations generally requiring Level 4 qualifications, more than 20 per cent were qualified up to Level 6 and above. There was also a significant proportion of the workforce – more than 30 per cent – only qualified up to Level 2 or 3.¹⁶

16. One explanation for this skills mismatch and, in particular, the over-reliance on graduates may well be their relative costs

– why would businesses invest in training to Levels 4 and 5 when young people are willing to take out a loan to pay for a three or four-year residential degree? Yet the skills mismatch is likely to result in inefficient practices in the workplace, providing at least part of the explanation for lower levels of productivity in the UK compared to other similar economies.

17. According to a study by the UK Commission for Employment and Skills:

Almost half of employers have staff with skills and qualifications beyond those required to do their job, equating to 4.3 million workers. This can result in demotivation, low job satisfaction and skill attrition for the individual; lower than optimal productivity for the employer; and limit returns on state investment in education.¹⁷

2. Why has policy failed to fill the gap?

18. In recent years there have been concerted attempts to encourage more people to study at Levels 4 and 5. The evidence suggests these policy prescriptions have failed to deliver a step-change in the number of learners at these levels, with new qualifications and pathways merely displacing existing ones.

19. Foundation Degrees, inspired by American Associate Degrees, were introduced in 2001 following the Dearing Report in 1997, which anticipated that much of the growth in demand for higher education would take place at sub-degree level.¹⁸ In terms of numbers enrolled, Foundation Degrees were quick to take-off, hitting a peak of 81,100 learners in 2009/10. However, the period of growth in Foundation Degrees saw a parallel decline in numbers studying towards other sub-degree level qualifications at higher education institutions, including HNCs and HNDs, Diplomas of Higher Education and Certificates of Higher Education. For example, the number studying towards technically-orientated Higher National qualifications fell from 28,000 in 2005/6 to 17,900 in 2009/10. Many HNDs were simply converted into Foundation Degrees by higher education institutions because of the funding premium they attracted. Since then the numbers studying Foundation Degrees and Higher National qualifications have both fallen back significantly. By 2012/13 only 59,400 learners were studying towards Foundation Degrees.

20. Part of the explanation for the decline in numbers studying Foundation Degrees can be found in the initial lack of clarity about their purpose. When David Blunkett launched the new qualification in a speech in 2000, his argument was underpinned by two separate objectives: that more sub-degree provision was needed to increase economic competitiveness; and that it would widen participation in higher education, creating greater social inclusion. Consequently, emphasis was placed on progression to full-degree status. Until 2007, each Foundation Degree needed to have a named honours degree to which students could progress. As a paper by the Association of Colleges has noted:

*an academic model of validating predominated, influencing learning strategies with an emphasis on knowledge retention and sometimes traditional assessment techniques at the expense of problem solving and skills development.*¹⁹

Many of the American Associate Degrees, which inspired Foundation Degrees, are in liberal arts subjects intended as an entry point to higher academic study, rather than free-standing and job-oriented professional and technical qualifications.

21. In terms of providing progression to a full degree, Foundation Degrees have been successful: 45 per cent of learners progressed to a full degree at the same institution in 2009/10. However, this link between Foundation Degrees and full degrees also helps to explain the recent downturn in enrolments. As the Higher Education Funding Council for

England (HEFCE) have noted, a rational response to the relaxation of student number controls has been to enrol Foundation Degree students on first-degree courses, in effect lowering the number of entrants to Foundation Degrees.²⁰ If Foundation Degrees had been established as free-standing technically-orientated qualifications with strong links to employers, then it is likely that student number controls would not have had such a dramatic impact as the brand would have been better established in its own right.

22. The Coalition Government sought to convert Higher Apprenticeships at Level 4 and above into a significant route to higher-level skills. Numbers have grown significantly, from just 100 learners in 2006/7 to 12,900 in 2012/13.²¹ While this growth is encouraging, it has not prevented an overall decline in numbers studying at sub-degree level.

23. While Higher Apprenticeships have great potential and, according to the recent OECD inquiry 'could play a very important role in raising the status of the whole apprenticeship sector', their growth could be hindered by the structural problems that continue to bedevil the delivery of technical education in England.²² Higher Apprenticeship frameworks must include both a competence and a technical qualification, the latter of which is likely to be found in the no-man's-land between the further and higher education sectors or, at higher levels, may present some of the same problems encountered by Foundation Degrees. As institutions with degree-awarding powers grant many of the knowledge

qualifications, FE colleges, which deliver most of the frameworks in practice, have to develop new validation relationships with higher education institutions for each new award, with consequent extra costs and complexity. Moreover, the different funding mechanisms for further education and higher education mean that, at present, higher-level apprentices need access to different loan schemes (HE and 24+) if they undertake separate competence and knowledge-based qualifications.²³

3. The vagueness of proposed solutions

24. Increased political interest in qualifications at Levels 4 and 5 means that public policy is likely to focus on increasing the numbers studying at these levels. In his speech in April 2014 on the future of further and higher education, Vince Cable announced a new generation of National Colleges: 'specialised institutions, acting as national centres of expertise, in key areas of the economy. They will combine academic knowledge with practical application.'²⁴ The first four National Colleges were announced in December 2014, specialising in Advanced Manufacturing, Digital Skills, Wind Energy and Creative and Cultural industries.²⁵ The Conservative party manifesto also included a commitment to roll out National Colleges.²⁶

25. Meanwhile, in a pamphlet published by the Social Market Foundation in 2014, the Shadow Minister for Universities, Science and Skills, Liam Byrne, proposed new 'earn while you learn' Technical Degrees which would, 'be delivered in partnership with industry; co-funded, co-designed and co-delivered by employers and universities.'²⁷

26. While both Cable's and Byrne's proposals addressed some of the issues that have inhibited growth in provision, such as student finance, there are good reasons to be sceptical that either, by themselves, could solve the Level 4 and Level 5 conundrum.

27. Firstly, as the OECD has noted, across countries the post-secondary sector 'is most successful when it has a clear set of institutions to champion it.'²⁸ Current policy prescriptions are unlikely to create such a clear set of institutions in England. The four new National Colleges that have so far been announced will only cater for some 10,000 students by 2020.²⁹ It is not clear whether they will develop strong institutional identities distinct from those institutions and organisations that will provide sponsorship. Moreover, FE colleges will work in collaboration with National Colleges on a hub and spoke model, denying the sector a clear sense of ownership.

28. The proposal for Technical Degrees shares many of the design features of Foundation Degrees. They will be validated and delivered by universities and provide clear articulation to a full honours degree. 'Where appropriate', Byrne noted in his pamphlet, 'universities should partner with a major college or network of colleges with specialist facilities.' Similarly, therefore, there is unlikely to be a 'clear set of institutions' that will champion the new qualification. Byrne's explanation as to why higher education institutions do not already provide sufficient provision of this type is that 'this sort of provision is not currently a priority with our university system, because it has never been a priority for government.'³⁰ Yet, there is little reason to believe that most universities have sufficient reason to change their core mission when applications for existing fully-funded residential degrees remain high.

29. Secondly, the current complex system of qualification design, validation and quality assurance inhibits the development of short-cycle technical qualifications and also employer involvement in curriculum and programme design. Without more substantial reform, sub-degree provision will continue to sit uncomfortably in the divide between higher education and further education and the skills system, and a great number of agencies will continue to be involved, including the Quality Assurance Agency, HEFCE, the Skills Funding Agency (SFA), professional bodies, Ofqual and Ofsted.

30. While universities have well-developed and relatively sophisticated systems for developing and validating new degree-level awards, these processes are not well suited to short-cycle technical education. The model is rooted in traditional academic disciplines and involves long validation procedures that can be slow to respond to changing business needs. The experience of Foundation Degrees has shown that new qualifications developed and delivered by higher education institutions have put an emphasis on academic knowledge – with theory leading practice – and progression to full honours degrees.

31. Thirdly, prescriptions for greater provision of job-orientated qualifications often assume employers are willing to become more involved if only the system enabled them to be so. This expectation is not unreasonable given the evidence that the current provision is not well tailored to their

needs. However, there are reasons to be sceptical about the willingness of employers to play a greater role in the system, not least because they do not do so at present. It may well be that the relative openness of the English labour market, together with the opacity of the system of technical qualifications means that employers have developed methods for coping relatively well without qualifications that fit their needs. As the OECD note:

In relatively deregulated labour markets, such as the UK, initial recruitment decisions are less weighty and risky for employers, because the costs and risks of a wrong choice of recruit are lower than in more tightly regulated labour markets ... In these circumstances employers can opt to use criteria other than qualifications to recruit, they can take people on for trial periods to directly assess their knowledge and skills, or they can poach skilled labour from other companies rather than taking a risk with a newly qualified person. In short, they have ways of opting out of reliance on vocational qualifications.³¹

32. If this is the established norm, then many employers may not feel the need to take greater ownership of the skills system. The recent experience of apprenticeship reform gives credence to the view that public policy makers are naïve to take it for granted that employers want greater control particularly over funding. Proposed reforms of the system to route apprenticeship funding directly through employers, first outlined in the Richard Review in 2013, have been quietly

dropped. Instead, the Budget in March 2015 outlined virtual control of funding via a new 'digital apprenticeship voucher'. In practice, this means that training funds will continue to go directly from the SFA to providers rather than via employers.³²

33. Further, a recent review of the first round of Employer Ownership Pilots (EOPs), which are designed to give employers more freedom and leverage over the use of government funding for training, has found disappointing initial results, with just 37 per cent of projected training starts so far. The evaluation found a lack of demand and commitment from employers, particularly SMEs, to be factors in the disappointing results. The evaluation also noted that the financial contributions from employers have mostly been in-kind rather than cash.³³

34. A substantial answer to the Level 4 and 5 conundrum must address each of these three issues:

- there needs to a clear set of institutions whose core mission is based around technical and professional qualifications;
- work-orientated qualifications at higher levels should all be validated and funded by the same processes; and
- public policy needs to both acknowledge and address the genuine barriers to employer engagement.

4. Principles for reform

35. A concerted effort to establish levels of technician-level skills comparable to those found in other advanced economies must facilitate the development of a set of institutions that see this provision as fundamental to their core mission. A necessary step to achieving this objective, but by no means a complete answer, is to simplify the complex system by which this provision is funded, replacing it with a structure that facilitates collaboration between higher education institutions and FE colleges that want to occupy this space and also the expansion of provision.

36. The recent decline in the number of entrants to undergraduate courses other than first full honours degrees – including Foundation Degrees and Higher Nationals – demonstrates the pitfalls of not having a separate funding system for this type of provision. While the number of entrants to these courses has fallen dramatically at higher education institutions, the number of full-time entrants at FE colleges, which cannot typically offer first full degrees, has risen. Between 2010-11 and 2011-12, there was an increase of 5,000 full-time students registering at FE colleges, made up of around 3,000 additional entrants to Foundation Degree Courses and 2,000 additional entrants to HNDs. As a consequence of these trends, more full-time entrants to undergraduate courses below full first degrees, including Foundation Degrees and Higher Nationals, are now taught in FE than in HE and the gap has continued to widen. Numbers

of part-time HE students in FE has also fallen less dramatically than at higher education institutions, with numbers studying part-time HNCs and HNDs remaining constant at around 6,000.³⁴

37. At present, qualifications delivered in FE are funded in three main ways, either directly or indirectly (in the case of franchise arrangements with higher education institutions) by HEFCE, by the SFA or from other sources. Simply managing these different funding streams represents a substantial hidden cost for FE. In Scotland where a single body, the Scottish Funding Council, is responsible for funding both HE and FE, a significantly higher proportion of students study towards sub-degree level qualifications in colleges. Students studying Scottish HNCs and HNDs represent 15 per cent of all students in higher education and 90 per cent of these students are studying in colleges compared to 10 per cent in universities.³⁵

38. BIS launched a consultation in 2014 on a proposal to move Higher National awards from HEFCE to the SFA as part of a wider consultation on the expansion of Advanced Learning Loans.³⁶ However, simply moving funding from HE to FE would not itself solve the problems of an institutionally-based funding system (and would notably remove the entitlement to maintenance support for some full-time students). The funding mechanism needs to reflect the distinctive features of the work-oriented technical and professional qualifications. To fully engage employers and employees, policy must aim to break open what has been till now an opaque system.

Business should be the primary driver of provision regardless of existing funding distinctions between qualification level and institutions. Different employers require different skills at different qualification levels. Employers are not interested in, and are often alienated by the distinctions between entitlements, funding streams and institutions.

39. A separate funding system could also facilitate the development of a clear and distinct vocational path to higher qualifications, making the route more attractive to learners. The establishment of seven new universities of applied sciences in Switzerland in 1997 has helped to raise the status of vocational education. Entrance to the new institutions is dependent on gaining a vocational baccalaureate which can only be studied towards, during or after an apprenticeship.³⁷

40. If FE in England is to play a leading role in the delivery of technical and professional qualifications at sub first-degree level, consideration needs to be given to the standards of teaching and the paucity of links to practice in the workplace. The Lingfield review in 2012 identified persistent weaknesses in standards that had not been resolved by the introduction of mandatory initial teacher training in the sector. Training was found to be too generic and theoretical and insufficiently related to the occupational expertise of college lecturers. It was, the initial report of the review concluded, 'often the workplace element and application of the awards which we found lacking. These include ... the relevance of the programme to each professional specialism, eg engineering,

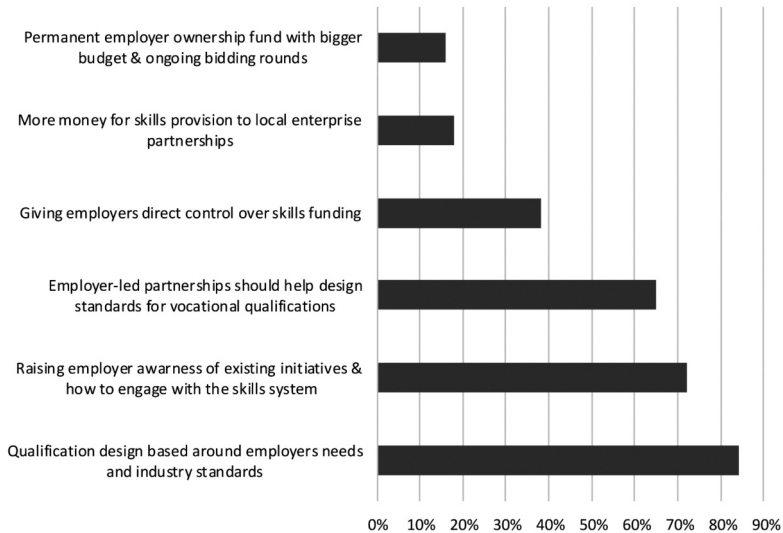
construction, hospitality and catering, healthcare etc.' Further, lecturers were often given little opportunity and time to reflect and link theory to practice.³⁸

41. Another impediment to a practice-led approach to teaching has been the requirement that part-time teachers in FE achieve the Preparing to Teach in the Lifelong Sector (PTLLS) qualification within the first year of teaching, effectively acting as a barrier to the recruitment of teaching staff with relevant industry experience.

42. The Commission on Adult Vocational Teaching and Learning, led by Frank McLoughlin, recommended the development of 'dual professional' teachers in the FE sector, who combine occupational and pedagogical expertise.³⁹ Reform should facilitate a 'community of practice' between industry and the FE sector that helps to ensure that provision meets the needs of employers.

43. Recent attempts to engage the private sector more fully in the delivery of state-sponsored training have emanated from Whitehall with seemingly little regard to what employers actually want and how they may wish to engage more fully. Yet surveys, such as the annual CBI / Pearson Skills Survey, make it clear that employers want to become more involved in designing qualifications around industry standards and crave more stability in the system. On the other hand, it is also clear that most do not want to have greater control over funding, either through Local Enterprise Partnerships or as individual employers.⁴⁰

Priorities for progressing employer ownership



44. The figures in the chart above appear to explain the disappointing initial results of the first round of the Employer Ownership Pilots – only 16 per cent of respondents to the CBI/Pearson Survey wanted a ‘permanent employer ownership fund with bigger budget & ongoing bidding rounds’.

45. One recent initiative designed to give employers a greater role in curriculum design has been the Trailblazer programme to enable employers to come together to design apprenticeship standards tailored to meet their needs. A large number of the emerging frameworks are being positioned by employer groups at Levels 4 and 5, demonstrating frustrated

demand at these levels. However, the *ad hoc* nature of the initiative has also created problems likely to frustrate delivery in the long-run. Approval has already been given to 144 standards, sometimes with many in the same sector (there are thirteen approved frameworks in construction). There is a danger of the proliferation of related standards and the unnecessary and inefficient duplication of similar but different job roles.⁴¹

46. There is also a question mark over the way Trailblazer standards will be reviewed and updated. A recent report by BIS found concerns over the review process among employers involved in developing the initial standards. The report concludes 'should sufficient [numbers] of the original individuals not be retained within the Trailblazer groupings, this may create issues of a lack of continuity.'⁴²

47. Concerns over Trailblazers highlight the fact that England lacks the kind of industry-owned and employer-facing institutions that determine the content of training in countries that have secured higher take-up of intermediate technical and professional qualifications. Developing better institutional anchors for qualifications is an important part of the answer to the problem of employer engagement.

48. It has often been noted that the structures responsible for training in Britain have been unstable and subject to almost continual reform. As an OCED review of adult education noted, 'just as there is constant change and development of policies related to adult learning, there is a constant change

and creation of institutions and bodies devoted to different tasks within the lifelong learning arena.⁴³

49. The complexity and instability of the institutions responsible for the content and funding of vocational and technical education increases the information costs borne by employers navigating the system. In other countries that have achieved greater stability, the role of employers is central to qualification and funding systems. Building strong institutional anchors could improve the understanding and recognition of the qualification system by employers and thus increase their levels of engagement.

50. A key role of such institutions would be to develop clear, stable and well-understood technical training routes. Part of this would be to develop a stronger link between qualifications, specific job titles and membership of professional bodies. In the UK there is a relative shortage of Science, Engineering and Technology (SET) technicians qualified to an intermediate level. Countries with a stronger sectoral link, such as Germany, ensure more consistent skills amongst occupational groups.

5. Recommendations

51. Solving the Level 4 and Level 5 conundrum will require comprehensive reform of the way technical and professional qualifications are accredited and funded. Government should consider the possibility of a distinct funding mechanism for work-oriented post-secondary education that would radically simplify funding for those institutions in the HE and FE sector that achieve the standard required for accreditation. Students should be able to access full tuition fee loans through the Student Loans Company (SLC) as is presently the case for HE and Advanced FE loans.

52. A clear distinction should be made between 'stepping-stone' qualifications – largely academically-oriented courses intended to provide a route to full degrees – and employer-led technical qualifications with links to the workplace. The former should continue to be funded via HEFCE, although policy should address concerns about the extent to which stepping-stone courses are being converted into full degrees. As HEFCE have noted, 'If there is an increasing propensity to register onto longer courses, we may eventually see a rise in non-completion rates as more students may drop out before they reach the full qualification.'⁴⁴

53. A distinct system would also help to prevent higher technical training from being re-badged as degrees – potentially incentivising higher education institutions to develop innovative ways of delivering provision in collaboration with employers and colleges. A separate credit and

qualification framework for technical and professional qualifications would enable progression through a distinct route, facilitating professional development in the workplace and a better match between qualifications and job roles. Such a framework already exists in Scotland and Wales and in several continental countries.⁴⁵

54. Given that constant change has inhibited employer engagement in the past, a new system for accrediting qualifications should embrace existing well-established brands such as Higher Nationals. It should also give scope to accredited higher education institutions, FE colleges and private training providers to design and deliver their own qualifications if they can demonstrate sufficient rigour and industry engagement.

55. A persistent criticism of the English system is that there are simply too many qualifications. In recent years it has been an explicit objective of policy to reduce those with small numbers of learners that are eligible for government funding.⁴⁶ However, while there is a strong case for removing funding for qualifications that are low value and do not meet genuine economic need, the number of learners studying towards a qualification is a poor proxy for industry demand, especially in sectors where there are niche but important job roles linked to specific and well regarded awards. Currently the SFA will only fund provision which has at least 100 learner starts per year, but some occupations require fewer people than this. For instance, the film and television industries need

qualified grips and crane operators, yet new entrants each year may be small in number.⁴⁷ Awarding bodies can appeal to the SFA to fund provision if there is good evidence of industry support and need, but this is a yearly and time-consuming process. Sector Skills Councils have also voiced concerns that awarding bodies are uninterested in developing qualifications with small numbers of learners. However, providers may well be interested in offering these qualifications if they establish links to clusters of local employers in a specific sector.

56. The rapid growth in students studying Higher National qualifications at alternative providers of higher education highlights a possible pitfall in any approach designed to encourage greater provision of technical and professional education. Following the decision to allow learners at alternative providers more access to student support, annual funding for private providers has increased from £30 million in 2010 to a projected £900 million in 2014. As a consequence, BIS has been forced to introduce student number controls for private providers for the first time.⁴⁸ While such growth in sub-degree technical qualifications may appear a welcome development, there are concerns about the regulatory regime under which private providers operate. Vince Cable has publicly stated that ‘there is a lot of dross in the sector’, and the National Audit Office is also concerned about the administration of the policy and the possibility of fraud.⁴⁹

57. There is little evidence that the recent growth in the private provision of Higher Nationals is directly linked to employer demand or that employers are involved in their delivery. Rather than a top-down approach to controlling student numbers, providers should have to demonstrate good links to employers as part of the process of accreditation. All vocational courses should have an element of genuine workplace experience as a condition of funding. Such a condition would ensure that provision meets employer demand, facilitate links between providers and employers and make sure that learners are gaining skills that are applicable in the workplace.

58. In 2012, the Lingfield review recommended a new quality assurance scheme for FE that would enable colleges to achieve chartered status. A subsequent consultation on the proposal recommended that the demonstration of engagement with employers in the area should be a core part of the process of achieving this status.⁵⁰ Subsequently, Lord Lingfield established an Institution for Further Education which has recently received a Royal Charter. The Government should give its full support to establishing the new chartered status, which could form the basis of accrediting FE institutions able to design and deliver their own technical qualifications at sub-degree level.⁵¹

59. Another important aspect of the accreditation process is for institutions to demonstrate that teachers and lecturers have up-to-date industry experience and knowledge of current practice. The Lingfield review recommended creating

an FE Guild to promote professionalism in FE based on consensus and shared aspiration rather than coercion. The FE Guild has subsequently been given the rather more prosaic name 'The Education and Training Foundation'. An accreditation process that emphasises links to business would encourage the Foundation to look at ways of encouraging people with recent industry experience into teaching. This could be achieved by removing some of the qualification barriers to becoming a part-time teacher in FE and also through the establishment of a scheme similar to 'Teach First' which enables trained technicians to teach after retirement.

60. Formal industry representation should be a fundamental aspect of any new system for the accreditation and funding of technical and professional qualifications. Policy should move away from *ad hoc* and piecemeal initiatives such as the Employer Ownership Pilots and Trailblazers towards an approach that leads to the creation of strong and stable institutional anchors for business involvement. The confusing and inefficient proliferation of related apprenticeship standards and the duplication of similar job roles that has resulted from the Trailblazer initiative reaffirm the importance of maintaining a regularly updated register of national occupational standards. Sector Skills Councils and professional bodies should continue to have a role in this process. However, in place of the one-size-fits-all system of state-sponsored sectoral bodies that has prevailed in the past, policy should also give precedence to those sectors where employers demonstrate a commitment to training.

61. The second round of Employer Ownership Pilots has focused on the formation of Industrial Partnerships – groups of employers in strategically-important sectors that are prepared to take end-to-end responsibility for skills development in the workplace. So far, eight partnerships have been created involving about 600 employers.⁵² Although the model is too new for any firm conclusions to be drawn about its success or failure, there is at least some initial evidence that this structured approach to engage employers is providing better results than the more *ad hoc* approach of the first round of Pilots. In particular, Industrial Partnerships appear to be leveraging significant cash investment, along with investment in kind. If systematic evaluations confirm that Industrial Partnerships are delivering in practice, then they could form the basis of the institutional anchors for employer engagement that policy in England has so far lacked.

62. Policy should build on this model, rewarding success, providing stability and thus encouraging employers in other sectors to come together in a similar fashion. One way to do this would be to give Industrial Partnerships a formal role as the employer voice in the validation of technical qualifications and institutional accreditation.

Conclusion

63. Higher technical education matters, both for the future of the British economy and for the future of learners who want to study towards qualifications valued in the job market. Yet the complexity and opacity of the current system has denied many access to the learning that most meets their needs, contributing to Britain's poor productivity.

64. Given the significance of technical education to Britain's future, a concerted policy effort is needed to provide a clear path to high-level skills. This paper has proposed a new settlement for technical and professional education, based on a distinct system for funding and validation.

65. At a time when the budget for post-secondary education is likely to be squeezed, it is important that funding priorities are determined by the needs of businesses and learners. At present higher technical learning lacks a strong institutional voice to champion its cause, it could be marginalised even further if apprenticeship starts at Level 2 and undergraduate admissions remain the focus of government policy.

66. A strong and stable institutional structure, supported by employers, would give technical and professional education a strong voice in the education system for the first time, providing a long-lasting solution to the Level 4 and Level 5 conundrum.

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England and Wales lag behind competitor nations in the proportion of people with higher technical skills. In this pamphlet, Scott Kelly proposes three overarching reforms to ensure employers have access to the skills they need.

1. There should be a well-defined set of institutions where the core mission is to deliver technical and professional qualifications.
2. Work-oriented qualifications at higher levels should be validated and funded by the same processes.
3. Public policy should acknowledge and address the barriers to employer engagement.

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