30 APRIL 2018

POST-18 EDUCATION & FUNDING REVIEW

RESPONSE BY LORD SAINSBURY OF TURVILLE
TO THE CALL FOR EVIDENCE

GATSBY

INTRODUCTION

1 This submission focuses on a vital but frequently overlooked aspect of the HE system: higher technical education at Levels 4 and 5.

2 All technical education is concerned with the journey to occupational competence. Regardless of the age of learner, level of study, or mode of learning (eg apprenticeship or classroom-based, part-time or full-time, face-to-face or online), high-quality technical education focuses on equipping individuals with the knowledge and skills that employers consider are essential to perform competently in one or more skilled occupations. Technical education thus draws its purpose squarely from the skilled workplace, rather than academic subject criteria or benchmark statements. In short, higher technical education is a discrete but substantial portion of Level 4/5 provision with a clear occupational purpose and focus.

3 In April 2016, the Independent Panel on Technical Education[1], under my chairmanship, made 34 recommendations to transform technical education in this country and to bring it up to the standard seen in other, higher-performing countries. The government, in its Post-16 Skills Plan[2], accepted all my panel's recommendations and work is currently underway to implement them. Notably, wide-ranging reforms to 16-19 education will see new, more rigorous Level 3 qualifications (T-levels) introduced from 2020. But progress to reform higher technical education has been much slower, meaning that progression options from T-levels (and indeed Level 3 apprenticeships) still lack the clarity necessary if our new technical education system is to represent a highly compelling proposition to potential learners and their parents. A DFE internal review of Level 4 and 5 provision has been underway for six months, but with the review of post-18 education now considering significant elements of the Level 4/5 landscape – not least funding – I would encourage you to consider how the DFE Level 4/5 review can dovetail more closely with the post-18 review. Regardless of the operational arrangements, if we fail to grasp this opportunity to put in place a robust higher technical education system, we will have failed not just to support diversity and social justice in the HE system, but also to address some of the most pressing skills challenges that British industry faces.

THE CURRENT SITUATION

4 We are an international outlier in provision of higher technical education. Just 7% of students aged 18-65 in England and Northern Ireland are studying on programmes at Level 4 and 5. This is one of the lowest proportions in the OECD, and significantly lower than Germany (20%), France (21%), the USA (27%), or Ireland (32%)[3]. Indeed, our skills system is massively skewed towards the lower and higher levels, with a 'hollowing out' in the middle. When one looks at the highest level of qualification achieved by the age of 25, just 4% of people have Level 4 and 5, compared to 49% for Levels 2 and 3, and 33% for Levels 6 and 7+.

5 This skewed skills profile reinforces a perception held by many learners qualified to Level 3: that a full bachelor's degree is the only credible education progression option open to them. So, many of those who do not wish to commit to the time and expense (in fees and forgone earnings) that a degree demands end up retaining Level 3 as their highest qualification, thus curtailing their future earnings and career opportunities.

6 An equally damaging result of the lack of high-currency provision at Levels 4 and 5 is the significant mismatch we now see between the skills that our economy needs to remain competitive, and the

[1] https://www.gov.uk/government/publications/post-16-skills-plan-and-independent-report-on-technical-education
[2] ibid.
[3] OECD (2014), Skills Beyond School: Synthesis Report.

training and qualifications being promoted to young people and adults. To take one key example, technicians – skilled people qualified at Levels 3, 4 and 5 who use their science, engineering or technology knowledge to identify and solve practical problems – are crucial to the success of many of our country's future growth areas, including the aerospace, chemical, digital, engineering and manufacturing industries. Furthermore, beyond the obvious skills needs of technology-heavy sectors, many areas of our national life, from the NHS to our armed services, depend on skilled technicians to operate efficiently. However, while there has been significant effort and investment over several decades to increase the number of STEM graduates, successive governments have turned a blind eye to the supply of technicians at Levels 3, 4 and 5 in these same disciplines. As a result, we now face an acute shortage of technician level STEM skills[4]. Estimates suggest that the UK engineering sector alone needs to recruit around 81,000 technicians every year if it is to replace those retiring and to fill new positions; the comparable number for graduate engineers is around 5% lower.[5] When one notes that, in 2016/17, England trained 30,900 engineering apprentices at Level 3 and just 900 at Levels 4 and 5, the scale of the challenge is thrown into stark relief.[6] Unless we can improve the supply of technicians, especially at Levels 4 and 5, we will lose out to our competitors as innovation continues to drive changes in the workplace, including, for example, as the internet of things and cyber-physical systems revolutionise manufacturing.

7 It is increasingly accepted within government that this lack of higher technical skills provision is holding back our economy[7]. Employers, too, consistently report that higher level skills shortages, especially at Levels 4 and 5, are restricting business growth and productivity[8]. But for years, technical education at Levels 4 and 5 has been a neglected area of skills policy. This neglect has led to the current situation, where progression routes into and from Level 4 and 5 courses are poorly defined and rarely communicated to individuals who could benefit from training at these levels. It is worth restating that the under-investment witnessed at Levels 4 and 5 (in terms of policy development as well as funding) sits in stark contrast to the efforts of successive governments to drive ever-increasing numbers of students to undergraduate degrees. Similarly, while one must hope that a sizeable number of apprenticeships stimulated by the apprenticeship levy and other recent reforms will be at Levels 4 and 5, greater government attention appears to be focused on Degree Apprenticeships, including the provision of more than £9 million from HEFCE (now OfS) to stimulate their growth[9].

8 If provision and skills at higher technical levels do not increase, and the pool of graduates continues to expand, employers will continue to resort to recruiting graduates into technician-level roles. Analysis by the CIPD shows that the underutilisation of graduates, and the percentage of graduates in non-graduate jobs, is higher in the UK than in other European countries[10]. As the National Audit Office points out in its recent review of STEM skills:

> *"Both the oversupply of some graduate-level skills and the undersupply of technician-level skills can result in graduates occupying technician-level roles for which they are overqualified and under-skilled. This can lead to low morale and high staff turnover. Graduate-level skills may not align directly with those required in technician-level roles, particularly in engineering-related occupations, where*

[4] See, for example, National Audit Office (2018). Delivering STEM skills for the economy.

[5] UKCES (2016). Working Futures 2014-2024: Engineering Extension.

[6] FE data library: apprenticeships, on www.gov.uk.

[7] See, for example, the Post-16 Skills Plan (2016), or Building our Industrial Strategy (2017)

[8] See, for example, the CBI/Pearson Education & Skills Surveys of 2015 and 2017.

[9] Degree Apprenticeships Development Fund: https://www.officeforstudents.org.uk/advice-and-guidance/skills-and-employment/apprenticeships/how-are-apprenticeships-funded/

[10] CIPD (2015). Over-qualification and skills mismatch in the graduate labour market

> *technicians are likely to have expertise in particular processes or instruments that graduates may lack."* [11]

9 Yet the problem is not the *number* of Level 4 and 5 qualifications available, nor the range of institutions offering them. There are currently 1,533 Level 4 and 5 qualifications regulated by Ofqual[12] and available to learners in England, and many more offered by providers with their own awarding powers, including 1,557 Foundation Degree courses from 193 providers in England currently advertised by UCAS.[13] Level 4 and 5 qualifications are offered by a wide range of HE providers (including FE colleges, universities, alternative and private training providers), and awarding organisations (including private companies, professional bodies, and FE colleges and HEIs with their own awarding powers). With such a diversity of provision, is it any wonder that employers and potential learners can by mystified about how higher technical qualifications are quality assured, and that training providers, particularly those without their own awarding powers, may find it easier to decide what to offer based less on quality and more on cost?

10 **There is a pressing need to ensure that higher technical qualifications are as clearly understood by learners and employers as undergraduate degrees. These qualifications must have equal value in the national labour market whether studied at a college in Devon or a university in Durham**.

11 The remainder of this submission sets out three key elements that need to be put in place if we are to create a high-status higher technical education system – one in which qualifications at Levels 4 and 5 are closely aligned to higher apprenticeships and which are understood and valued by employers (and so have real currency in the labour market).

KEY REQUIREMENTS FOR A WORLD-CLASS HIGHER TECHNICAL EDUCATION SYSTEM

12 Higher technical qualifications that work in the marketplace, with standards aligned to apprenticeships and set by employers through the Institute for Apprenticeships.

A key recommendation of my panel's 2016 report was that the Institute for Apprenticeships (IFA) should maintain a register of technical qualifications at Levels 4 and 5 that meet national standards, and that only qualifications on this register would be eligible for public subsidy. The government, in its Post-16 Skills Plan, committed to implementing this recommendation:

> *"In line with the Sainsbury panel's findings, we propose that technical education at higher skill levels must still follow national standards, overseen by the Institute for Apprenticeships. Employers and individuals need to have confidence in the system and understand how qualifications translate into jobs. […]*
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> *"For each of the 15 [technical education] routes, the Institute for Apprenticeships will maintain a register of technical qualifications at Levels 4 and 5 which are eligible for public subsidy through government-backed student loans. To begin with, this register will be drawn from those existing technical qualifications which are considered to do the best job of meeting national standards. The standards used will be set by the [IFA] panels of professionals based on the relevant technical knowledge, skills and behaviours at the higher levels, and will align with the standards for apprenticeship programmes in the same route. […]*

[11] National Audit Office (2018). Delivering STEM skills for the economy.

[12] https://register.ofqual.gov.uk/ Accessed 14.04.2018

[13] https://www.ucas.com/ Accessed 14.04.2018.

> *"We would not expect [higher] technical qualifications to exist for all routes or all parts of each route; sometimes apprenticeships alone might suffice, and in other cases there may not be enough roles to justify the college-based technical route. But where there is a good case for college-based technical learning and no technical qualifications are currently offered, the Institute will be able to stimulate the creation of new qualifications in each route."* [14]

13 Having national, employer-set standards for higher technical qualifications would bring many advantages. Employers could be confident that an individual with a 'Higher Technical Diploma' in, say, cyber security, had all the knowledge and skills required to perform well in a relevant Level 5 occupation, regardless of which institution awarded the qualification. In turn, an individual would be assured that (because employers valued it) investment of time and money in studying for such a qualification would be rewarded with good employment prospects. Such a standardised approach – backed with national marketing and an overarching brand (eg 'Higher Technicals') for those qualifications which meet the IFA's quality mark – should make it more attractive for HE providers to offer the courses (lower course design and marketing costs), and easier to design subsequent 'top-up' courses (eg to a full bachelor's degree) which could be offered by multiple HE providers. Finally, a key requirement for success is that national higher technical qualifications dovetail seamlessly with apprenticeships under a common framework of IFA-held standards, as such an approach brings several further benefits and efficiencies for:

- learners, who would be able to transition more easily between the two modes of learning, for instance progressing from a Level 3 apprenticeship to a Level 4 taught course and then, perhaps later, to a Level 6 Degree Apprenticeship;
- training providers, who would be able to use the same teachers and equipment with both students and apprentices, perhaps even co-teaching some content;
- employers, who would be able to train different staff towards the same endpoint via either apprenticeships or taught courses, depending on circumstances;
- the economy: in a recession, as apprenticeship numbers contract and unemployment rises, taught courses can expand (and, in key areas, be stimulated to do so by government) to allow adults to continue to reskill / upskill and develop the knowledge and skills employers will need as the economy returns to growth;
- the skills system overall: increasingly one might see high-quality Level 4/5 qualifications not just sitting *alongside* higher apprenticeships but becoming embedded *within* them, acting as an efficient way of assessing knowledge-intensive components of Level 4/5 apprenticeships.

14 This 'national standards' model contrasts with an 'institutional autonomy' one, in which 200-plus universities, colleges and private training providers with awarding powers would be allowed to design their own Level 5 cyber security qualification, thus requiring employers to know which ones had a curriculum that met their needs and which ones were any good.

15 Our current system is, broadly speaking, a hybrid model involving institutional autonomy (eg for Foundation Degrees) and external awarding (or licensing) by a large for-profit company (Pearson, for all HNCs and HNDs) and non-profit professional bodies (for professional qualifications in, say, accountancy). As a result, there are thousands of Level 4/5 qualifications on offer, the value and quality of few of which is understood by employers or individuals.

16 **The government's commitment to progress towards a national system of higher-level technical qualifications – underpinned by IFA-held standards – must be delivered in full.**

[14] DFE / BIS (July 2016). Post-16 Skills Plan. Quote taken from pages 25-26.

Only in this way will we build a rigorous, stable and well-understood technical education system comparable to the best in the world. Much of the necessary infrastructure is already in place. The DFE/IFA, has, with support from my Gatsby Foundation, constructed a set of occupational maps that will form the basis of aligning the content of apprenticeships and technical qualifications to occupational standards at all levels, including higher technical occupations at Levels 4 and 5. The remit of the IFA will expand later this year to include classroom-based technical education and, working with the DFE, the necessary panels of industry experts are being assembled.

17 There remain, however, three challenges with introducing a national system of qualifications. Firstly, the IFA is a new body and at present does not have the capacity or expertise to expand into the role envisaged for it by the Post-16 Skills Plan: holding standards for and regulating higher technical qualifications would require the IFA to expand significantly from its current size. But such expansion and development can be managed if well planned. Successful implementation simply requires clear vision, sufficient resourcing and strong operational management: this must be deliverable by Whitehall.

18 Secondly, we must ensure that, in setting national standards, we do not stifle the ability for training to be responsive to local employer needs. The IFA will need to consider the best way to approach this (probably on a route-by-route basis) but adopting a 'mandatory core plus flexible options' approach, and encouraging appropriate contextualisation when mandated content is taught, are typical ways of ensuring national standards are maintained while allowing local needs to be served. Indeed, many HE providers are already used to this approach as it is common to HNCs and HNDs delivered under licence from Pearson Education Ltd.[15]

19 The other outstanding question to be addressed is how the delivery of national higher technical qualifications will be regulated, and specifically which organisation(s) will be responsible for this. Alongside the IFA and its role in apprenticeship standard setting, there are currently several regulators operating in the Level 4/5 space, notably Ofqual and QAA for qualification standards, and Ofsted, QAA and OfS for teaching quality. The government's Post-16 Skills Plan envisaged a system in which the IFA would regulate Level 4/5 technical qualifications (those designed specifically to lead to occupational competence), and OfS would regulate Level 4/5 academic qualifications (those, including many Foundation Degrees, designed as "*part of a wider programme of study leading to a full bachelor's degree*"[16]). This may be the best option, but consideration might also be given to an alternative model in which OfS is charged with regulating the delivery of all Level 4-plus qualifications, albeit working closely with IFA on technical qualifications to ensure employer needs are being met.

20 <u>Financial incentives aligned to offering and participating in high-quality higher technical education</u>

Even once we have a robust mechanism for identifying which existing Level 4/5 technical qualifications meet employer standards and have labour market currency, and stimulating the creation of new qualifications to fill identifiable skills gaps, we must recognise that we are starting from a very low base in terms of awareness of Level 4/5 qualifications. There is no longer any well-trodden path of Level 3 to Level 4/5 progression, except in a small number of occupations. Decades of fiercely promoting Level 6 undergraduate degrees means that very few of the learners who could benefit from Level 4/5 education are aware of the option, and employers have defaulted to recruiting graduates (often lacking in the requisite occupational skills and knowledge) rather than proactively seeking Level 4/5 qualifications which might better meet their needs. We have both a supply and a demand problem and creating high-quality Level 4/5 qualifications – while a necessary first step – will not by itself solve the chronic skills mismatch discussed earlier.

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[15] Pearson (2015) Higher Education Institutions offering BTEC Higher Nationals under Licence: Centre Guide. https://qualifications.pearson.com/content/dam/pdf/BTEC-Higher-Nationals/HEI_Centre_Guide_2015.pdf

[16] DFE / BIS (July 2016). Post-16 Skills Plan. Quote used from page 27

21 **Alongside better communication of labour market information and wage returns to potential learners, the government will need to put in place active incentives, at least in the short-medium term, to stimulate increased Level 4/5 participation. The most obvious policy levers in this regard are financial, and will need to be applied in some combination to learners, employers, and training providers.**

22 Incentives for learners on approved higher technical courses could include: more favourable loan terms, including lower interest rates and/or higher repayment thresholds; increased access to maintenance loans for part-time learners; increased access to tuition fee loans for those who already possess equivalent level qualifications who wish to retrain for strategically important occupations, especially in STEM; and conversion of loans to grants for successful completion of those Level 4/5 courses with most labour market need.

23 Incentives for employers must recognise that those who invest in upskilling and retraining their staff play an essential role in the higher education system and in driving increased productivity. Noting that apprenticeships and higher technical taught courses are two paths leading towards the same outcome – occupational competence – and based on the same nationally held, employer-set standards, serious consideration should be given to bringing higher technical taught courses into scope for the apprenticeship levy. In this way levy-paying employers would be free to choose the most appropriate mode of training for their staff according to need and circumstance. Extending such incentives to non-levy paying employers could also be facilitated easily through the existing online levy account system, which sees employer contributions topped up with a fixed percentage of government co-investment. However, if it is felt that the levy must stay strictly ring-fenced for apprenticeships, other straightforward employer tax or National Insurance reliefs could be considered.

24 Incentives for training providers need to acknowledge that, having lifted the cap on the number of students they can recruit, and permitted all to charge the maximum fee allowable, the government has created a system whereby universities are incentivised to recruit as many young people as possible onto low cost, three-year courses so that high-cost courses can be subsidised, and reserves can be protected. Furthermore, the reduction of income via HEFCE teaching grants has made providers increasingly reliant on this tuition fee income, whether from learners or their employers. As Level 4/5 courses often have smaller numbers of learners than undergraduate courses, they become increasingly hard to sustain, particularly where providers may be reliant on a single employer to support continuation of a course. Larger teaching grants for providers of higher technical education in strategically important and/or vulnerable occupations would both incentivise and sustain new provision. Alongside this, increased access to capital funds for industry-grade facilities will be essential to enable delivery of higher technical qualifications to be world-class. And the oft-quoted observation that the quality of an education system cannot exceed the quality of its teachers is no less true for higher technical education. Training providers need access to funding to recruit highly-skilled 'dual professional' teachers who have both relevant, recent industrial experience as well as well-developed pedagogic ability. It is pleasing to see that the government is beginning to invest in the development off the teaching workforce in preparation for T-levels; a similar investment will be needed alongside the expansion of Level 4/5 provision. Finally, the dozen or so Institutes of Technology (IoTs), which will open over the next few years and focus on higher technical education, are a very welcome addition to the landscape, bringing as they will industry-grade equipment and strong employer partnerships. But, as new institutions, IoTs are likely to need more than just capital funding from government. For their first few years, as they build their reputation, course provision and student numbers, a degree of support towards IoT revenue expenditure will also be required.

25 Comprehensive and accurate labour market information available to all

The final piece of the jigsaw – alongside stimulating Level 4/5 provision which has genuine labour market currency, and incentivising learners, employers and providers to undertake and offer world-

class higher technical education – is to ensure that all those who can benefit from Level 4/5 education have access to comprehensive, up-to-date information as to its relative benefits.

26 Careers education and guidance in this country has, for decades, failed too many people and often only promoted technical education as second best to academic study. In schools and colleges there are promising signs that this is beginning to change. In recent months, the DFE has issued statutory guidance that requires all schools and colleges to work towards achieving, by 2020, the eight Gatsby Benchmarks for good career guidance[17] which were developed by my Foundation through examining best practice in England and what works in other countries. So, the next few years will see a transformation in school and college career guidance programmes, representing a significant opportunity to ensure accurate information about higher technical qualifications and higher apprenticeships reaches young people.

27 But many people who would benefit from higher technical education are already in the workforce. For these, just as for young people, access to accurate local and national labour market information, in an easily digestible format, is essential. **Prospective students need information about what job opportunities currently exist and which occupations are expected to grow or shrink in the coming years, as well as wage returns to and progression outcomes from all qualifications, so that they are able to weigh the relative merits of choosing one over another (eg a full bachelor's degree against a shorter, perhaps cheaper, Level 5 diploma).** The National Careers Service has a role to play here, but importantly so too do LEPs and their new Skills Advisory Panels, which will be analysing labour market information and matching it to present and future training needs. Ultimately what matters is that any person considering study in higher education knows where and how to find out about all the options open to them – not just bachelor's degrees – and that this information is presented in a straightforward and unbiased way.

CONCLUSION

28 There is an urgent need to reverse the decades of neglect of higher technical education in England. We have a vastly unbalanced skills distribution that is seen almost nowhere else in the developed world. Employers cannot fill vacancies for skilled technician roles, and relying solely on apprenticeships to fill the gaps is unrealistic in the extreme. Without concerted and sustained action, we will continue to see productivity levels stagnate, while also continuing to deny large numbers of our citizens the opportunity of training beyond Level 3 and the improved life chances that come with it.

29 We need what is seen in other high-performing countries: a system of national technical qualifications that works in the market because employers understand and value what the qualifications represent. This can only be achieved if employers themselves are involved in setting qualification standards and have confidence that everyone possessing a certain qualification has been required to demonstrate that they have mastered the same core body of knowledge and skills, irrespective of which institution they attended.

30 The government is making good progress with reforming Level 3 technical education. We must now work with equal verve to finish the job and make higher technical education in England the equal of any in the world.

[17] http://www.gatsby.org.uk/education/focus-areas/good-career-guidance