

27 OCTOBER 2010

THE WOLF REVIEW OF VOCATIONAL EDUCATION

SUBMISSION OF EVIDENCE



GATSBY

ABOUT GATSBY

- 1 Gatsby is a Trust set up in 1967 by David Sainsbury (now Lord Sainsbury of Turville) to realise his charitable objectives. We focus our support on a limited number of areas:
- Plant science research
 - Neuroscience research
 - Science and engineering education
 - Economic development in Africa
 - Public policy research and advice
 - The Arts

INTRODUCTION

- 2 This country's lack of technicians – those in the STEM workforce with intermediate-level skills – is a problem which has been known about for decades. However, in spite of numerous reorganisations and policy documents, it has not been addressed. This has been due to a failure to put in place the following key elements:
- a well understood and tested qualifications system for transferable technician skills which delivers financial rewards and enhances employment prospects in the labour market. This should cover both acquiring a knowledge base and practical skills. It should not cover company-specific skills which should be the responsibility of industry;
 - a funding system that enables both younger and older workers to take the time to get the qualifications. In this country the funding for the acquisition of the knowledge base will largely have to come from government¹;
 - appropriate infrastructure to deliver the above provision, including suitably qualified lecturers/instructors and appropriate training facilities, especially in the Further Education (FE) sector.
- 3 We believe that Professor Wolf's Review offers the opportunity to address some of these elements by reconsidering the role of government in vocational education². The record of government interventions in this area is poor. Constant interference and tinkering has increased the complexity of the system and reduced confidence in the quality of vocational qualifications. The desire to meet quantitative targets for education has led to a funding regime that does not produce the key skills that industry needs.
- 4 In moving forward, the UK needs to work towards a system for vocational education that is genuinely responsive to the needs of individuals and employers and is not dependent on the changing views of government.

¹ The UK cannot, for example, copy the German system because, unlike Germany, it does not have strong trade associations which are able both to put pressure on their members to fund the necessary training and to prevent the poaching of staff.

² We have reluctantly used the term 'vocational' in this response since this is used in the Review's terms of reference. A more appropriate term, and one which we would like to see used more consistently in official policy documents when referring to the needs of future technicians, is 'technical' (ie 'technical education and training', 'technical qualifications', etc).

VOCATIONAL EDUCATION & STEM

- 5 Vocational education has a critical role to play in ensuring the supply of STEM skills. For some students the academic pathway of A-levels followed by a traditional university degree at 19 is appropriate, but for many others there needs to be a strong vocationally-related STEM provision from 14-19 and beyond: in short there is a critical need for a ‘technical stream’.
- 6 We believe that in the STEM subjects the professional bodies (coordinated by the Engineering Council and Science Council) have a critical role to play by developing professional registration standards that ensure the occupational needs of employers are met while ensuring that knowledge and skills required over the longer term of an individual’s career are also valued. Following Lord Sainsbury’s recommendations in the light of last year’s Skills White Paper the new Technician Council is coordinating the development of a common framework of registration standards with three tiers (starting at ‘Registered Technician’ and concluding at Chartered level) for all those working in STEM.
- 7 Once such standards have been agreed they will enable Awarding Organisations and others to develop vocational qualifications that have genuine value in the labour market. The standards will also enable individuals to make more informed choices about the qualifications that will help them achieve their career goals.
- 8 While the creation of a professional registration framework might be dismissed by the uninitiated simply as a process to categorise the STEM workforce, we believe it is the key to a strengthened and streamlined vocational education system and a larger and better equipped technical workforce. It also, incidentally, has the advantage of requiring very little or no government funding to succeed. It does however require government support in policy terms.

THE VALUE OF PROFESSIONAL REGISTRATION FOR TECHNICIANS

- 9 Individuals will gain professional registration by firstly joining a relevant professional body and then, through the registration process, by demonstrating professional competence as well as a commitment to refreshing their knowledge and skills as their careers develop. Currently there are registers across Science, Engineering, IT and Health at postgraduate levels, but technician-level registration only exists in Engineering (EngTech) and ICT (ICT-Tech).
- 10 The professional bodies act as gatekeepers for the standards of technician registration in a similar fashion to the way that they do for Chartered designations (CEng, CSci, CChem, etc). Registration through professional bodies brings status – much more than any government could ever hope to confer on an individual qualification. More importantly, registration is only financially viable for professional bodies if it is sufficiently attractive to individual technicians for them to pay their registration fees, and this will only be the case if registration standards reflect the needs of employers.
- 11 The knowledge and skills enshrined within the registration standards reflect the demands of the workplace but are broader than those that would be assessed through NVQs or other occupational qualifications. This breadth is vital in ensuring the transferable knowledge and skills that will enable a technician to respond to innovation and change are also valued.
- 12 Once the standards for registration have been agreed then individual professional bodies will decide which qualifications they will accept as evidence for meeting the standards for registration. This process will thus drive a rationalisation in the number of vocational STEM qualifications.

A TECHNICAL STREAM – ALIGNING EDUCATION AND REGISTRATION

- 13 Traditionally one would expect vocational education to be about equipping young people with the knowledge and skills to carry out a particular job. However, with the apparent bifurcation of the UK labour market into low skilled employment requiring little or no education and high skilled

employment apparently requiring degrees, this role has become less clear and the links between vocational qualifications and employment have weakened.

- 14 From a STEM perspective there appears to be little value in Level 2 qualifications other than as preparation for further study or progression to an Advanced Apprenticeship. The issue then becomes how best to provide a range of qualifications at Level 2 that ensure a suitable option for all young people with the ability and aptitude to work in STEM at Level 3 and above. The government's focus should be on ensuring far more young people reach Level 3 in STEM subjects and sectors than is currently the case. For most young people this will be achieved in school and/or college and so the education system must be suitably dovetailed with the country's skills demands.
- 15 Many of the recent failures of policy in vocational education have arisen because the links between so-called vocational qualifications and employment were too weak. As a consequence of this failure to deliver what should be their unique selling point, vocational qualifications have been forced to compete in the marketplace with A-Levels as either broad general Level 3 education pathways or as university gatekeeper qualifications.
- 16 Professional registration sets clear expectations based on employment and the need for transferable skills that should enable the development of a strong technical stream that leads to worthwhile and rewarding careers. Registration will be aligned to apprenticeship frameworks so that those completing Advanced Apprenticeships should be in a position to apply for Registered Technician status. Similarly, as more Higher Apprenticeships are developed it will be important to align these with the criteria for the two higher tiers of registration. The recent announcement by David Willetts suggesting the term 'technician' could be a "badge of honour" awarded on completion of high status apprenticeships is to be welcomed, but only as long as such an award is tied to professional registration standards.
- 17 For some who find that they wish to progress further, professional development and the three-tier registration framework of the professional bodies will provide an opportunity to access the professions.

VOCATIONAL QUALIFICATIONS

- 18 It is unclear whether the structure put in place by the last government for the public funding of qualifications is set to continue. This saw public funding effectively limited to GCE/GCSE, Apprenticeship Frameworks, Foundation Learning and Diplomas; an approach which now looks unsustainable and unhelpful. This funding structure gave rise to an overly complex approval process for vocational qualifications with different systems in operation pre- and post-19, resulting in a wasteful regulation infrastructure and increasing the qualification development costs for Awarding Organisations.
- 19 To take one example, the role of Sector Skills Councils (SSCs) and other similar bodies in the approval process for qualifications does not appear to have increased the value that employers place on qualifications. Nor has it led to a significant rationalisation in the number of qualifications. We therefore consider there is a case for reviewing the requirement for SSCs to be involved in the approval process for qualifications included in the Qualifications and Credit Framework (and thus able to access public funding).
- 20 We applaud the desire to ensure vocational qualifications meet the needs of employers. But this can best be achieved by focusing less on the bureaucracy of qualification approval and more on the outcomes secured for learners. We believe that for qualifications at Level 3 and above, on submission for approval by Ofqual, Awarding Organisations should simply be required to state whether or not the qualification has the formal recognition of professional bodies for addressing the requirements of professional registration.

- 21 There should be no compunction for the Awarding Organisations to submit a new qualification to the professional bodies, but the status of counting towards professional registration standards or not should be attached as a public marker to all qualifications at Level 3 and above. Such a marker should be included on all government agency databases for qualifications, including Ofqual's *Register of Regulated Qualifications*. In this way, learners, careers advisers and schools and colleges would be able to make informed decisions about qualifications and whether they are suitable for a particular occupation.

FUNDING & INFRASTRUCTURE

- 22 The current funding regime is not sufficiently flexible to allow for the differences between the needs of different subjects and sectors or to respond to local and regional needs.
- 23 We believe that the government should continue to increase its investment in apprenticeships but that this growth must be linked to sectors of the economy which are expanding and based on the value of the apprenticeship to the individual and their contribution to the UK economy. Any temptation to increase participation in cheaper apprenticeships, simply in order to meet numerical targets at reduced cost, must be resisted.
- 24 A key barrier to increasing apprenticeships in the high value sectors will be the preponderance of SMEs in these sectors. Working with UKCES and others, government needs to find additional ways of ensuring that apprenticeships are offered where they are most needed rather than where they are most easily delivered.
- 25 A technical stream requires a high-quality teaching workforce as well as workshops and laboratories that reflect the modern high-tech working environment. Anecdotally we believe that we are some way away from having sufficient suitably qualified lecturers/instructors to deliver a technical stream. It is a matter of some concern that weaknesses in the FE workforce data make it impossible to quantify the size of this problem.
- 26 The advent of University Technical Colleges should help to address some of the issues in terms of providing suitable facilities for a 14-19 technical stream. However there will continue to be a significant need for FE colleges to teach the technical stream and colleges must be able to access funds that allow them to ensure their technical facilities are fit for purpose and that their lecturers are kept up to date with current industrial practice.

CAREERS INFORMATION, ADVICE AND GUIDANCE

- 27 The UK system for skills relies upon a complex interaction between demand from employers for particular skills and demand from learners for individual qualifications. For this system to work both employers and potential employees require a shared understanding of the skills system and the value of individual qualifications within it.
- 28 Currently there is no way for young people to access data about the employment prospects that follow from different qualifications. This is a significant omission that means effectively young people have little or no basis on which to choose one vocational qualification over another. A database of qualifications recognised for technician registration would be a step forward in this direction.
- 29 Ideally what is required is a single, straightforward on-line source of information that allows a young person (or parent or employer) to access and compare:
- the popularity of every vocational qualification, in terms of numbers studying them and regional distribution;
 - the historical success (pass) rate for each qualification;

- required prior learning and typical routes into each qualification;
 - typical progression routes out of each qualification (eg employment in certain sectors; or progression to further study; etc);
 - employability rates for each qualification (where appropriate);
 - average earnings 12 months after achieving a qualification (where appropriate);
 - case studies of previous participants on a course;
 - likely demand for specific skills in the workforce (tied to the National Skills Audit).
- 30 Noting that many people will move between vocational and academic pathways, the database described above should ideally also include relevant academic qualifications (eg AS/A-level mathematics or traditional undergraduate courses in engineering, etc). Similarly it should have a reach beyond the STEM subjects. However, to make the construction of such an initiative more feasible, we suggest the initial focus should be on Level 3 and Level 4 qualifications, while embedding sufficient flexibility such that it can be expanded over time.
- 31 In addition to information on qualifications there is a need to develop much more detailed descriptions of the world of work, akin to the O*NET system used in the United States (<http://online.onetcenter.org/>) but with enhanced functionality. Indeed much of the work that needs to be done here has already been undertaken in the creation of O*NET. It may be therefore that the remaining challenges would largely be in adapting O*NET and connecting it to UK labour market information.
- 32 Gatsby would be willing to consider a co-funding proposal, with government and others, for the development of such a system.