23 SEPTEMBER 2012

RICHARD REVIEW OF APPRENTICESHIPS

RESPONSE TO THE CALL FOR EVIDENCE

GATSBY

INTRODUCTION

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 the following areas:

- Plant science research
- Neuroscience research
- Science and engineering education
- Economic development in Africa
- Public policy research and advice
- The Arts

2 The Review is likely to receive a large number of submissions from a range of interested organisations, and we have therefore kept our submission brief. Our response focuses on apprenticeship provision within our own area of interest – high-growth science, engineering and technology-related (SET) sectors – but our ideas could also be applied to apprenticeships in other sectors of the economy.

3 We have just one recommendation for the Review – that schemes of professional registration in SET sectors should be used to assure the quality of apprenticeships for the long term. As we explain below, this is a sector-led solution, and will ensure apprenticeships continue to meet the needs of employers, individuals and the economy in the future.

APPRENTICESHIPS: THE PRIMARY TRAINING ROUTE FOR THE UK'S TECHNICIANS

4 The UK has a shortage of technicians – people working in practical roles at qualification Levels 3 and 4 in high-growth SET sectors. In its 2010 National Strategic Skills Audit, the UK Commission for Employment and Skills highlighted an urgent need for technicians within sectors of high economic importance, including manufacturing, oil, gas, electricity, chemicals, pharmaceuticals, automotive, engineering and broadcasting[1]. The Technician Council also calculates that growth and an ageing workforce will increase the demand for technicians in the economy, and that up to 450,000 technician jobs will be created in the next eight years[2].

5 Apprenticeships are an excellent way to train technicians. The blend of practical skill and technical knowledge that good apprenticeships provide is precisely the mix of attributes needed in technician occupations. In order to remain competitive, high-growth SET industries need a high-quality apprenticeship programme to train the next generation of technicians.

6 However, as the Review notes in its Call for Evidence, a common criticism of the government funded apprenticeship scheme is variation in the quality of provision. An apprenticeship requires considerable investment from the employer to ensure apprentices have the high-quality, occupationally-oriented learning experience that characterises the best apprenticeships. As a result, the quality of apprenticeships varies considerably, not just from one sector to the next, but also between employers providing the same apprenticeship programme. Having studied this issue for several years, we are convinced that the best way to assure quality and consistency within SET industries is to link apprenticeship provision with the standards required for professional registration.

[1] *Skills for Jobs: Today and Tomorrow*, UK Commission for Employment & Skills, 2010
[2] *Professional Technician: The Future*, The Technician Council, 2012

PROFESSIONAL REGISTRATION

7 Entry to the professions in SET industries is based on schemes of voluntary professional registration. Individuals who apply for registration are assessed by a process of peer review and must demonstrate certain levels of competence and commitment to professional behaviour. Professional titles are available at different occupational levels, from technician through to chartered status. The table below shows the registers that are available to those in engineering and science, for example.

Professional Titles in Engineering	Professional Titles in Science	Typical Qualification Routes
Engineering Technician (EngTech)	Registered Science Technician (RSciTech)	Advanced Apprenticeship, A-Levels, BTEC National
Incorporated Engineer (IEng)	Registered Scientist (RSci)	Higher Apprenticeship HNC / HND
Chartered Status (CEng)	Chartered Status (CSci, CPhys, CChem etc)	Masters' Degree

8 The three levels of registration thus provide a three-rung vocational 'ladder' to the professions.

9 For the individual, professional registration offers the possibility of increased earnings, international recognition of expertise, and opportunities to enhance competence through professional development. As a member of a professional body, registered individuals also become part of a professional community, building contacts and networks beyond their immediate place of work.

10 For employers, registered employees allow organisations to demonstrate their staff's competence and commitment to ethical behaviour, which can be an important factor in procurement or liability issues. When recruiting, employers can also be reassured that a registered individual has the levels of experience and competency they require.

11 Whilst professional registration in the SET sectors currently predominates at Chartered level, a number of the professional bodies in engineering and science have committed to undertaking significant work in the coming years to strengthen professional registration at technician level.

QUALITY ASSURING APPRENTICESHIP PROVISION BY PROFESSIONAL REGISTRATION

12 High quality apprenticeships and professional registration are a natural fit. The best apprenticeship programmes train apprentices for an *occupation*, not just a job. The learning experience stretches far beyond the acquisition of qualifications, and gives apprentices a strong sense of vocational identity and expertise[3]. Professional standards are also occupationally-focused. Whilst they are designed to meet the changing needs of employers, a peer review assessment process ensures individuals also meet the broader competence standards and levels of professionalism required by the profession.

13 The fit between apprenticeships and professional registration is particularly appropriate for technician occupations. The professional standards that individuals must meet to become registered technicians closely match the skills, knowledge and experience that are acquired in high quality advanced and higher apprenticeships. Indeed, engineering professional bodies already accredit some employers' advanced apprenticeship provision, enabling apprentices on the accredited programmes to register automatically as an Engineering Technician (EngTech) upon completion of their training.

[3] *Towards Expansive Apprenticeships*, Alison Fuller & Lorna Unwin

14 Professional bodies will only accredit high-quality apprenticeships that are occupationally-focused and satisfy the requirements for professional registration at a given level. In this way, professional registration serves as an independently validated 'kite mark' for high-quality apprenticeships. Young people and their parents can be assured that professional body-accredited apprenticeships provide the high-quality learning experiences they expect from publicly-funded apprenticeship schemes.

15 In addition to assuring the quality of apprenticeships, linking apprenticeships with professional registration in this way will also help to create a clear, technical training route into the professions – an area of the labour market dominated by graduates. Registration at technician level is the first rung on the ladder towards Chartered status, and accredited advanced apprenticeship places offer an excellent alternative to A-Levels for those seeking to work in technician roles. With work experience and further training, such as a Higher Apprenticeship, individuals can then progress on to higher levels of professional competence through a work-based route.

A SECTOR-DRIVEN SOLUTION

16 Explicitly linking SET advanced and higher apprenticeships to professional registration is a way of assuring high quality provision for the long term, without the need for government interference or centrally-defined quality standards. Professional bodies are licensed to set the standards for technician registration and are policed by the profession itself. They are independent institutions that exist to protect occupations and professions from external influence and political interference. However, they must also ensure that the occupational standards of the profession continue to meet the changing needs of employers, or registration will lose value within the labour market.

17 We firmly believe that professional bodies have the potential to play a formal role in the government-funded apprenticeship system. Not only providing a 'kite-mark' by accrediting existing apprenticeship programmes, but also helping to design new frameworks, and adapt existing ones, to align with the professional standards. This will help to rebalance ownership of the apprenticeship system away from government and towards the employer, whilst protecting the interests of the apprentice and the wider profession.

CONCLUSION

18 The UK economy urgently needs more technicians operating at Levels 3 and 4 in economically-important growth sectors. Gatsby has recently committed in excess of £5 million to working with a number of professional bodies, Unionlearn, Sector Skills Councils, and others to help increase professional registration at technician level in science, engineering and IT. Our aspiration is to see 100,000 technicians registered by 2018, creating a critical mass of registered technicians comparable in size to that found at Chartered level. Ensuring that advanced apprenticeships – as the primary training route for technicians – are accredited by professional bodies, and routinely linked to the professional standards for technician registration, is a critical part of this work.

19 **Government, through the National Apprenticeship Service, should enable the relevant professional bodies to become a principal social partner in the apprenticeship system. Professional bodies should be helped to accredit employers' apprenticeship provision where appropriate, making it straightforward for apprentices to become registered as technicians when they complete their training. This will help to assure the quality of apprenticeship provision for the long-term, without the need for government-led quality assurance mechanisms.**

20 We would welcome the opportunity to discuss with the Review Panel the points raised in this submission. Any questions regarding its content should be directed to:

Science & Engineering Education Team
The Gatsby Charitable Foundation
The Peak
5 Wilton Road
London
SW1V 1AP
tel: 020 7410 7129
email: education@gatsby.org.uk