

Conclusions

The long term economic success of the South East England Region will be underpinned by a healthy science, engineering and technology (SET) sector. However the sustainability of SET industries in South East England is under threat unless employers and providers engage to ensure that the supply of STEM intermediate skills meets employer demand for intermediate skills.

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A copy of the full report is available at
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Employer Demand for Apprenticeships and Intermediate Skills:

A review of the STEM sector in South East England



The Engineering and Technology Board (ETB), a charity that exists to promote, for the public benefit, the art and science of engineering and to advance education in engineering and technology (SET), is engaged in developing a wide range of research. The ETB's research strives to underpin its mission "To improve recognition within UK society of the importance of engineering and technology, and to encourage the ready supply and professional development of appropriately skilled individuals".

The ETB would like to acknowledge the support of SEEDA who jointly funded this research project



Introduction

The importance of intermediate vocational skills to the long-term success of science, engineering and technology (SET) industries has been reflected in the work of sector skills councils and the recent publication of Lord Leitch's review of skills. However there are fears that this activity is being undermined by low demand for intermediate skills both from young people taking SET apprenticeships and the demand for SET skills from employers. These fears are being reflected in poor uptake and completion of apprenticeships and resulting skills shortages for employers both at a national and regional level.

The ETB in conjunction with the South East England Development Agency (SEEDA) commissioned Freshminds to carry out a study to look at the supply of apprenticeship training and the demand for training from employers in the South East of England. The report highlighted failures and problems within both supply and demand of Apprentices. The influence on the size of companies and their engagement with the apprenticeship system was also explored. The report also highlighted the key problems found in the apprenticeship system and the attitude of employers and providers to potential skills shortages in the South East of England.

Methodology

The report used secondary sources to review the national background to the science, technology, engineering and mathematics (STEM) apprenticeship framework and the demand for STEM vocational skills across the UK. This was followed by two phases of primary research: a survey of 28 training providers in the South East of England and a survey of 211 STEM employers in the South East of England.

Views of Colleges/Providers

Nearly all (96%) of the providers in the study felt that it was important to have close relationships with employers. However the research highlighted the imbalance in perceptions about the nature of provider – employer relations. Many of the providers questioned on this point maintained that they had good communication with employers. However the research highlighted that engagement was focused on only a small number of employers.

Views of Employers

- + Only 1 in 4 of the STEM employers surveyed in this study employed Apprentices. This is a worrying finding given that apprenticeships are intended to be the primary vehicle for STEM vocational training.
- + There are a large number of employers located away from the immediate vicinity of a college. Therefore, more needs to be done to ensure that all employers know what training is offered close to their workplace.
- + Although many companies cite a lack of time or money as a barrier to the training of their employees, even more worrying is the fact that many employers see no barriers at all, and yet training levels remain low. This suggests that many STEM employers in the South East have adopted a low skills strategy, one that may be harming their long-term competitiveness. This is reflected in the fact that many employers often offer Apprentices employment once they have the requisite skills, at a time before completion of their Apprentice qualification.

Among micro companies and small and medium sized enterprises (SMEs) there is often the perception that it is too expensive to train an Apprentice.

- + All employers interviewed said that there were skills gaps across their business, but the levels at which these gaps occur are strongly affected by company size. Small organisations tend to suffer from gaps at the more junior levels, while for larger employers it is the more senior levels which are the problem area.

Employers perceive a number of problems within the apprenticeship system. These centred upon four key issues:

- + Low completion rates
- + Low credibility and poor quality of courses
- + Poor communication and marketing between providers and employers
- + High net cost of employing Apprentices

These problems represent the main barriers to addressing the STEM skill shortage in the South East of England, and have led to a number of both general and specific recommendations.

Recommendations for South East England

- + If completion rates are to be increased both Apprentices and employers should be encouraged to take a more long term view of training, rather than ending the employee's training as soon as they have reached a particular level of skill.
- + Better marketing of apprenticeship courses and improved communication between Further Education (FE) training colleges and employers would help to increase both the credibility and quality of courses. The benefit and long-term cost savings of investing in apprenticeships must also be marketed to employers.
- + Increased collaboration between micro companies and SMEs should be encouraged so that they appreciate the mutual benefit of training employees.

This would point to the need to encourage companies to work together so that more collective partnerships can be founded to address the skills shortage and train both existing and future employees.

- + In addition, collaboration between smaller companies would help reduce the financial burden of employing Apprentices. This could be organised through the forming of training syndicates, where the costs of training could be shared. The production of best-practice guides for both employers and training providers would also provide clear guidelines on the role of Apprentices and the long-term need for more of them to complete intermediate qualifications.
- + Another area to focus future activity would be to develop a mentoring relationship with SMEs to encourage them to engage with Further Education Colleges and apprenticeships, highlighting the need to train younger workers.
- + This research highlights a need for a brokerage/ facilitator role between training providers and employers. This would help to encourage better communication of what the industry needs and what employers can do. At a regional level this role could be taken on by SEEDA to complement national initiatives being supported by sector skills councils, skills academies and the Learning and Skills Council (LSC). In particular this activity could be in support of the LSC 'train to gain' initiative.

