

# Quality of apprenticeships and skills training inquiry

Campaign for Science and Engineering submission | 5<sup>th</sup> January 2018

## About CaSE

The Campaign for Science and Engineering (CaSE) is the leading independent advocate for science and engineering in the UK. CaSE believes the UK Government should support a healthy and flourishing science base. CaSE works to ensure that the UK has the policies, funding and skills to enable science and engineering to thrive. It is funded by individuals and around 100 organisations including businesses, universities, learned and professional organisations, and research charities. Collectively our members employ 360,000 people in the UK, and our industry and charity members invest around £34.9bn a year in R&D globally<sup>1</sup>.

## Apprenticeship quality is linked to equality and diversity

As the inquiry sets out, encouraging more people to pursue training is vital to the future health of our economy, particularly in areas where we face skills gaps. We face the largest skills gaps in the areas where we have the lowest diversity. Less than 25% of employees are women in four of the top five areas with the highest net STEM job requirements<sup>2</sup>.

Industry	Net requirements 2016-2023 in core STEM (000s)	Current proportion of women (%)
Computing services	88	16
Head offices etc	57	21
Architectural and related	38	10
Legal and accounting	35	29
Scientific research and development	29	20

Similarly, there is an annual shortage of 20,000 engineers<sup>3</sup> but in the core engineering workforce only 9.8% are women<sup>4</sup>, 6% BAME and 5% have a disability<sup>5</sup> (compared to 51%, 14% and 17% of the working population).

The inquiry looks to uncover barriers faced by the socially disadvantaged in accessing skills training and to consider how Government funding can be used to remove these barriers. As the number of

<sup>1</sup> Figure calculated in October 2016 from latest available data

<sup>2</sup> <http://www.sciencecampaign.org.uk/resource/jobs-of-the-future---social-market-foundation--edf-energy.html>

<sup>3</sup> <http://www.sciencecampaign.org.uk/resource/state-of-engineering-2017.html>

<sup>4</sup> <http://www.sciencecampaign.org.uk/resource/state-of-engineering-2017.html>

<sup>5</sup> <http://www.sciencecampaign.org.uk/resource/creating-cultures-where-all-engineers-thrive.html>

apprenticeships grows action is needed to ensure that their take-up is diverse and not contributing to or perpetuating social injustice.

We were therefore pleased to see the Industrial Strategy White Paper allocating £60m to support apprenticeship take up by young people and poorer families from disadvantaged areas and to see a target of increasing the proportion of apprenticeships started by people of black and minority ethnic backgrounds or with a learning difficulty and/or disability by 20% by 2020.

There are also social justice issues to be addressed relating to gender imbalances in apprenticeships. Whilst female apprentices have outnumbered males since 2010, women are more likely to be found in the service sectors where pay, qualification levels and career prospects tend to be lower. In traditionally male-dominated sectors, women's progress has stalled, with the percentage of female engineering apprentices declining from 4.6% in 2002 to 3.8% in 2014<sup>6</sup>. There has been an increase in the number of female STEM apprentices, but more recent figures show that the proportional total has decreased from 8.4%<sup>7</sup> in 2011/12 to 7.5% in 2015/16<sup>8</sup>.

We would recommend that there is action that could be taken by Government to address these often-intersecting challenges in two key areas; data collection and monitoring on apprenticeships, and improved careers education.

## Recommendations

Require the Institute for Apprenticeships to embed diversity monitoring, ensuring coverage of multiple characteristics by sector. The Government could then consider options for using funding as a lever to increase diversity where data shows progress in diversity is insufficient. In addition, much of reporting on apprenticeships, and indeed government targets, relate to apprenticeship starts. This isn't the most helpful measure. Instead data and measurement should focus more on completion and outcomes, with these also broken down by multiple characteristics by sector to provide accountability and drive progress in quality and equality.

Embed diversity and inclusion throughout a joined-up careers strategy. For instance, the National STEM Ambassador programme could include a specific diversity function, perhaps incentivising volunteers from apprenticeship schemes and SMEs, and increase monitoring of volunteer characteristics such as disability and socio-economic background, to allow channeling to where they can have the most impact. Recent careers announcements from the Department for Education contain some encouraging proposals but schools and colleges need additional funding if they are to adequately deliver on the Career Leader ambition. And there are particular challenges relating to ensuring good information, advice and guidance is given on apprenticeships. We have therefore suggested that the Career Leader role must be adequately funded. For instance, increasing the budget for schools and colleges by £40m to fund 0.25 FTE (based on average teacher salary) to fulfil the role at each education provider, and ensure that CPD funded through the careers strategy includes current STEM and apprenticeship content.

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<sup>6</sup> [http://www.sciencecampaign.org.uk/resource/making\\_apprenticeships\\_work\\_for\\_young\\_women.html](http://www.sciencecampaign.org.uk/resource/making_apprenticeships_work_for_young_women.html)

<sup>7</sup> [http://www.sciencecampaign.org.uk/resource/wise\\_uk\\_statistics\\_2014.html](http://www.sciencecampaign.org.uk/resource/wise_uk_statistics_2014.html)

<sup>8</sup> [www.wisecampaign.org.uk/resources/2017/11/women-on-stem-apprenticeships-201516](http://www.wisecampaign.org.uk/resources/2017/11/women-on-stem-apprenticeships-201516)