

Baroness McGregor-Smith
Review of the Issues Faced by Businesses in Developing Black and Minority Ethnic Talent
Department for Business, Energy and Industrial Strategy
1 Victoria Street
London
SW1H 0ET

10 August 2016

Dear Baroness McGregor-Smith,

RE: Call for evidence on the Issues Faced by Businesses in Developing Black and Minority Ethnic Talent

The Royal Society is the UK's National Academy of Science. Our fundamental purpose is to recognise, promote, and support excellence in science and to encourage the development and use of science for the benefit of humanity. A diverse and inclusive workforce that draws from the widest range of backgrounds, perspectives and experiences thereby maximising innovation and creativity will be vital to achieve this.

This response focuses on the specific issues for developing black and minority ethnic talent in science, technology, engineering, maths and medicine (STEMM). This is important when considering the issues faced by businesses because STEMM skills are a vital part of the UK's business workforce. 65% of R&D in the UK is performed by businesses¹. 39% of UK firms have difficulties recruiting staff with skills in science, technology, engineering and mathematics². The lack of diversity at the top levels of research and industry represents a huge waste of new talent that British businesses should be accessing to help the UK reach its full potential.

The Society has commissioned research to better understand the makeup of the UK scientific workforce and the case for increasing diversity in STEMM³. Below we outline findings of our research that are relevant to your review.

¹ Office for National Statistics (2016) UK Gross domestic expenditure on research and development: 2014 - <http://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletins/ukgrossdomesticexpenditureonresearchanddevelopment/2014> In 2014 the business sector performed £19.9 billion (65%) of the UK's £30.6 billion gross expenditure on R&D but funded £14.7 billion (48%) of this total.

² CBI/Pearson (2014) Gateway to growth: CBI/Pearson education and skills survey 2014

³ Westminster Business School (June 2014) *Diversity in STEMM: establishing a business case*
<https://royalsociety.org/-/media/policy/projects/leading-the-way/diversity-business-case-june-2014.pdf?la=en-GB>



President Sir Venki Ramakrishnan
Executive Director Dr Julie Maxton

Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science.

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It is important to separate out various ethnic groups when collecting data – BME is too broad a term

Due to the low numbers often represented in minority ethnicities, the tendency is to group them into BME (Black Minority Ethnic). *Diversity in STEMM: establishing a business case*⁴ specifically outlines the importance of separating out various ethnic groups and not looking at them collectively as BME because of the stark differences that can be found even in general groupings like ‘Asian’ (where Bangladeshi and Indian have different levels of representation) and ‘Black’ (where Black Caribbean and Black African also have very different levels of representation).

Ethnic diversity within STEMM is lower than the ethnic diversity of the UK’s workforce

*Diversity in STEMM: establishing a business case*⁵ finds that “in the UK as a whole, just over 10% of individuals in employment are from an minority ethnic background, of this group 6% are Asian, 2% are Black and 2% are in the ‘Other’ group (which includes individuals of mixed race and those who categorise themselves outside of Census categories). It finds less ethnic diversity in both the STEMM and STEMM+⁶ occupational groups, with only 8% of individuals in these groups from a minority ethnic background.” It is important to note that the picture is not static across STEMM disciplines “...The health sector is more diverse than the non-health sector in terms of gender, ethnicity and disability; once the health sector is removed from the analysis a less diverse picture of the UK STEMM workforce emerges.”

Black and minority ethnic talent is underrepresented at senior levels within the STEMM workforce

Our report *A picture of the UK scientific workforce*⁷ found that “black and minority ethnic students are less likely to progress to scientific jobs after graduating than white students”. Whilst black and black British people are slightly underrepresented in the most senior roles other ethnic groups, most notably Chinese, are overrepresented in the most senior roles. This demonstrates again, the importance of looking in depth at the individual ethnic identities.

The seniority pattern is similar in academia as can be seen in the ECU annual statistical reports⁸. “Among UK staff overall, a higher proportion of white staff (8.5%) were in senior contract levels (HOI–5B) than BME staff (6.4%; a difference of 2.1 percentage points). In contrast, 10.6% of UK staff in the lowest contract level (P: simple task providers) were BME.” Again, the data demonstrates the importance of drilling further down into the ethnic groups “Among UK academic staff, 11.2% of white

⁴ Westminster Business School (June 2014) *Diversity in STEMM: establishing a business case*

<https://royalsociety.org/-/media/policy/projects/leading-the-way/diversity-business-case-june-2014.pdf?la=en-GB>

⁵ Westminster Business School (June 2014) *Diversity in STEMM: establishing a business case*

<https://royalsociety.org/-/media/policy/projects/leading-the-way/diversity-business-case-june-2014.pdf?la=en-GB>

⁶ STEMM+ includes teaching professions.

⁷ Royal Society (2014) *A picture of the UK scientific workforce* <https://royalsociety.org/topics-policy/diversity-in-science/uk-scientific-workforce-report/>

⁸ Equality Challenge Unit (2015) *Equality in higher education: statistical report 2015* <http://www.ecu.ac.uk/publications/equality-higher-education-statistical-report-2015/>

staff were professors compared with 9.8% of BME staff. However, there was wide variation in the proportion of UK academic staff with professorial status among the different BME ethnic groups. For example, 14.0% of Chinese and 13.5% of academic staff of other ethnicity were professors compared with just 4.5% of black staff”.

Differences in STEMM participation begin at school

Ethnic background even has a delineation as early as school level when it comes to science. Whilst Asian and black students have high aspirations for science at year 6, even higher than white students, the Aspires project⁹ found that this does not translate into science participation post-16. “The qualitative data...showed that Asian students are most likely out of all ethnic groups to express aspirations for careers in, but particularly from, science (with medicine being particularly popular). The Aspires project goes so far as to identify the problem as one of inequality: “we suggest that the factors hindering Black students are largely common factors that affect all groups of students, but these are amplified in the case of Black students, due to the multiple inequalities they face.”

Perception of science was identified as an important factor in translation from school to further study. “For example, the widespread view of science qualifications as predominantly leading to a narrow range of careers (as a scientist or doctor) and stereotypes of scientists as being mostly White, male and middle-class, were particularly notable among Black students and their parents.”

The Society's activity is focused on creating the environment that will attract a wider pool of talented applicants to science and the Society's own programmes to better reflect the diversity of modern Society. This includes internal work to reduce barriers by reviewing publicity material and rolling out unconscious bias briefing among our panels and committees as well as externally-facing work to show young people where science can take them and create role models that can inspire them. Our *Inspiring Scientists* video series tells the life stories of ten British scientists with minority ethnic heritage with accompanying learning materials for use in classrooms. We have recently launched a programme targeting young black students interested in STEMM subjects and would be very happy to share the future outcomes of this with you.

Please do not hesitate to get in touch if we can support you in your review.

Yours sincerely,



Professor Uta Frith, DBE, FRS, FBA, FMedSci
Chair, Royal Society Diversity Committee

⁹ Kings College London Aspires project - <http://www.kcl.ac.uk/sspp/departments/education/research/aspires/index.aspx>