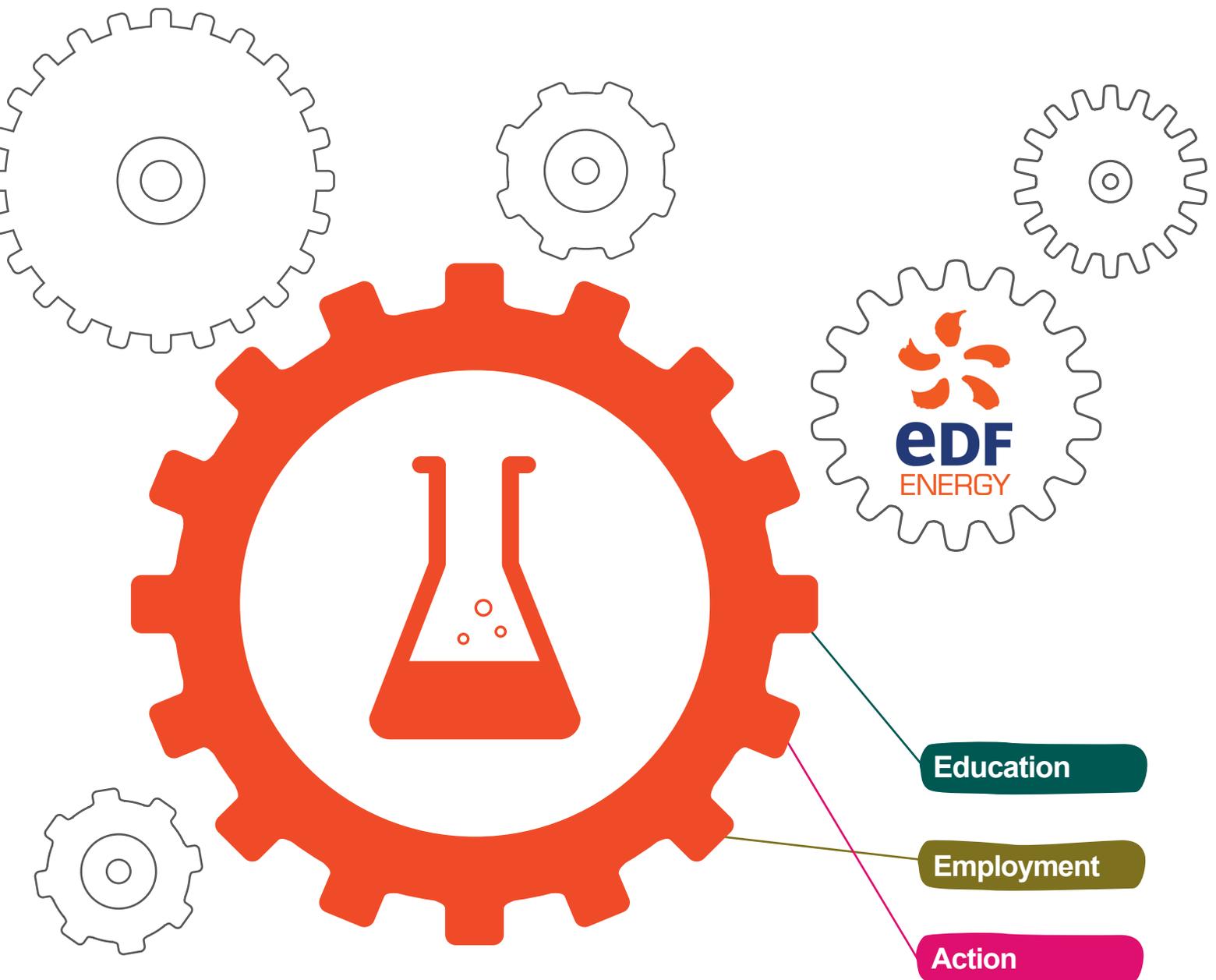
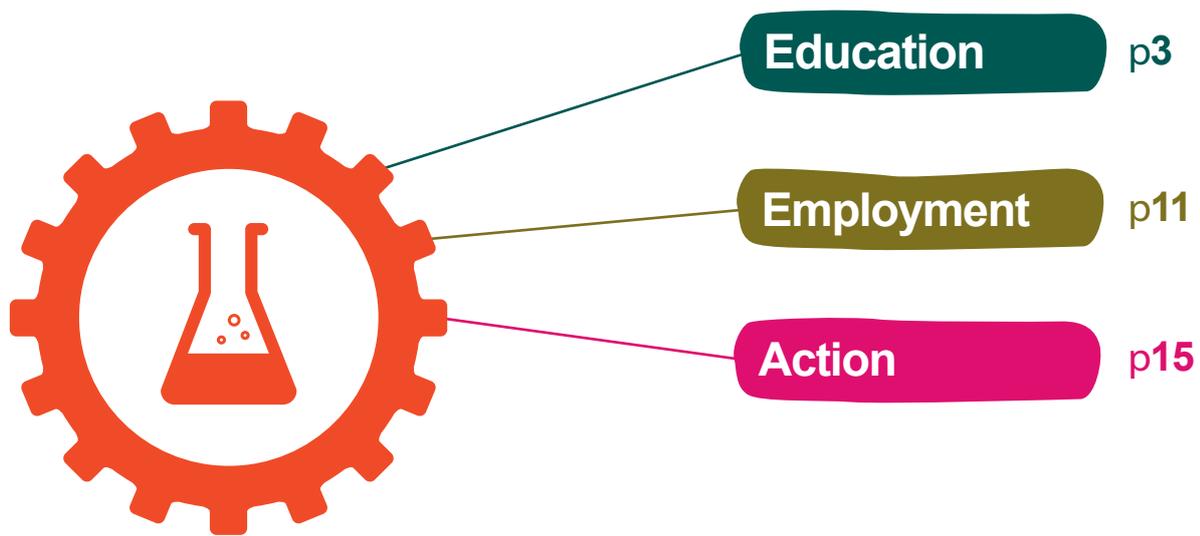


Sector Factsheet

Ethnic Minorities in Science, Technology,
Engineering and Mathematics (STEM)





Race for Opportunity is committed to improving employment opportunities for ethnic minorities across the UK and is the only race diversity campaign that has access to and influence over the leaders of the UK's best known organisations.

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Education

STEM in higher education

The UK has attached high importance to the need to develop and grow a highly skilled workforce that can compete for the jobs of the future. To echo the concerns of the House of Lords Select Committee on Science and Technology, a healthy science base and a suitable supply of trained STEM graduates are vital for the UK economy to do well. A recent report by the UK Commission for Employment and Skills (December 2014) listed the 40 top jobs of the future. It was interesting to note that five of these top jobs were specific to science, engineering and technology:

- Mechanical engineers
- Research and development managers
- Physical scientists
- Design and development engineers
- Biological scientists and biochemists

There was also a top job in agriculture – farmers will be in great demand over the next ten years.

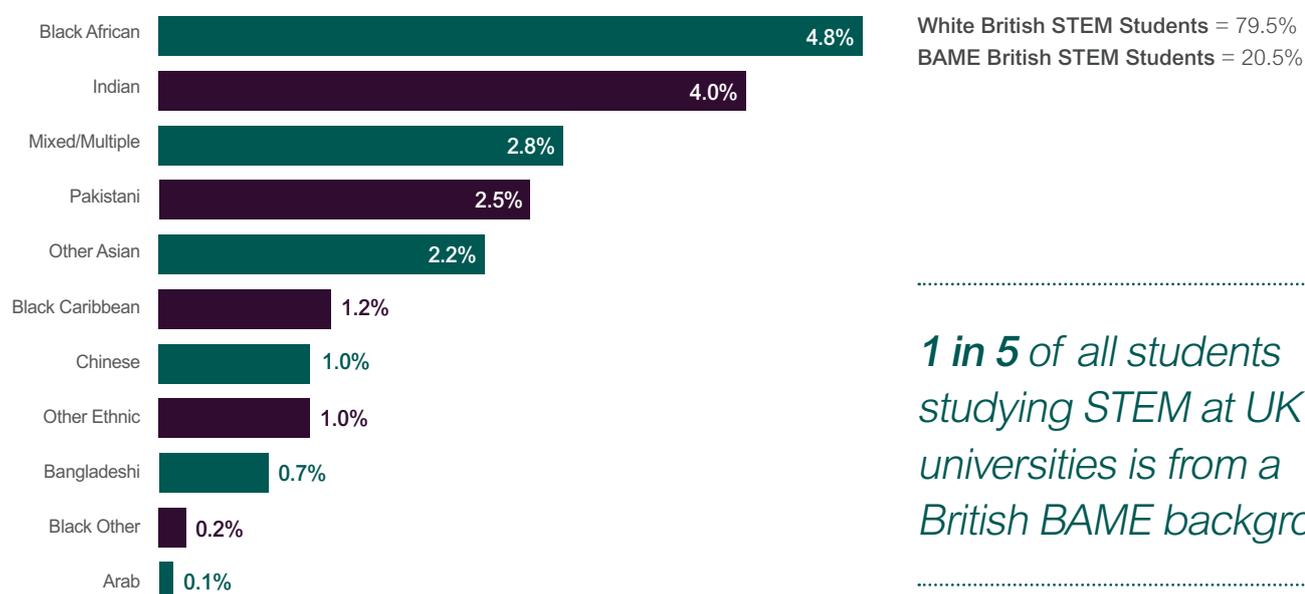
Black, Asian and Minority Ethnic (BAME) people make up 13% of the UK population and are over represented in the UK higher education system where they account for 19% of the student population.

There are a significant number of British BAME students who are specifically studying STEM-related subjects at UK universities – one fifth of all UK-domiciled STEM students are from a BAME background and as such, are an essential part of the UK STEM talent pipeline. This factsheet gives an insight to the choices made by our BAME STEM students by subject, location and gender as well as a preview of the secondary school pipeline. What becomes clear is that:

- Medicine is one of the top choices of degree for BAME students especially Black African students.
- There is little evidence of social-mobility with the majority of BAME students located at universities where there are large BAME communities.
- There is still a deep divide between those STEM subjects attractive to men and those to women. For example, 82% of the computer science cohort were male and only 18% women.

In 2012/13 UK-domiciled BAME students accounted for 21% of all UK-domiciled students studying STEM related subjects (see *Figure 1*). This is an upward trend since our last STEM update when BAME STEM students made up 19% of the total 2009/10 STEM cohort. Black African students had the highest representation (4.8%) followed by Indian students (4.0%) and students of mixed/multiple heritage (2.8%).

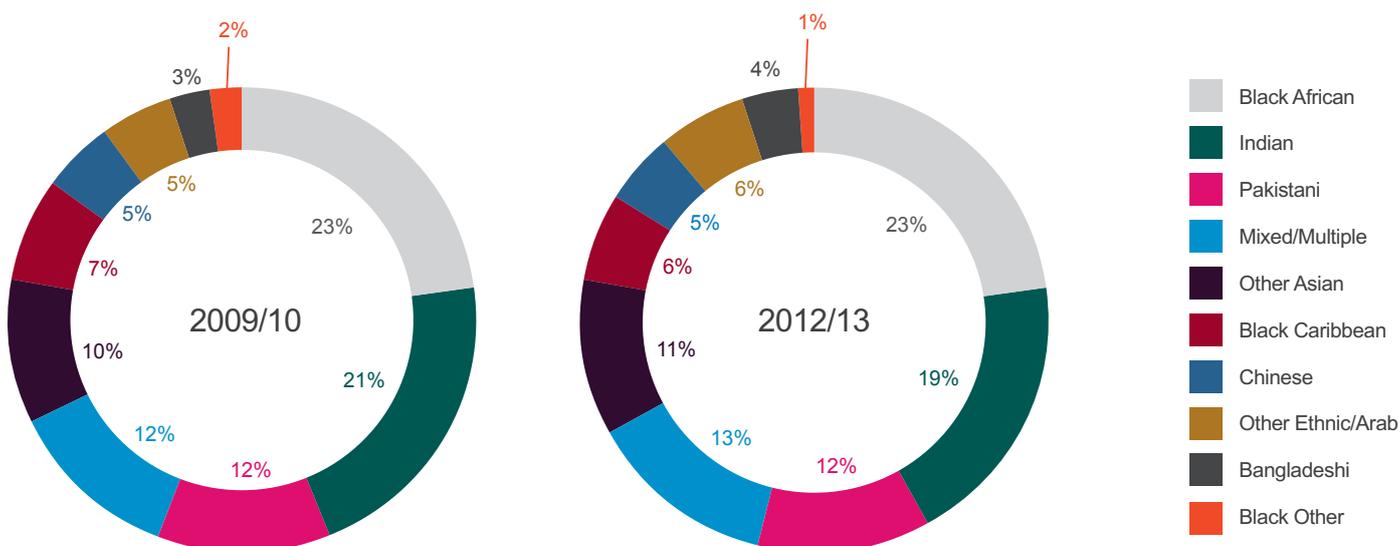
Figure 1: Representation of UK-Domiciled BAME Students in STEM Related Subjects at UK Universities (2012/13)



Interest in STEM related subjects continues to vary considerably between the different ethnic minority groups. Amongst BAME STEM students, Black African students continue to have a strong interest and have maintained their position as having the highest representation among BAME groups, (23%), same as in 2009/10, followed by Indian students (19%). There

has been a small increase in popularity from the mixed/multiple ethnic minority group – up from 12% in 2009/10 to 13% in 2012/13 (see *Figure 2*). At the other end of the spectrum, Black Other representation in STEM related subjects has decreased from 2% to 1% whilst Bangladeshi representation has moved up to 4%.

Figure 2: Representation among Ethnic Minority Students in STEM Related Subjects at University

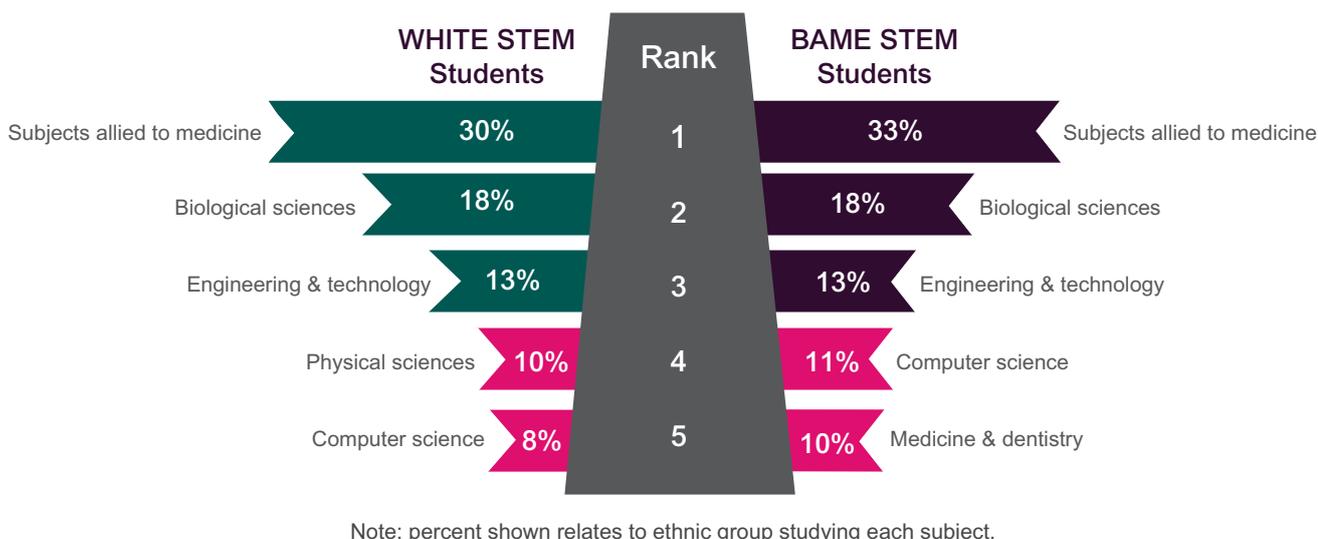


Popularity of STEM subjects

The most popular STEM related subjects for BAME students were subjects allied to medicine, biological sciences and engineering and technology, which was exactly the same as for students from the white ethnic group. However, there was a difference in 4th and 5th place choices between white and BAME STEM students – computer science was the fourth most popular choice for BAME STEM students with 11% of this cohort studying the subject whilst physical science was the 4th choice for white STEM students (see *Figure 3* overleaf).

The most popular STEM related subjects for BAME students were subjects allied to medicine, biological sciences and engineering and technology, which was exactly the same as for students from the white ethnic group.

Figure 3: Popularity of STEM-related Subjects White vs. BAME Students (2012/13)



A deeper dive into the choices of STEM subjects by individual ethnic groups highlighted subtle differences. Subjects allied to medicine is the first choice for all groups except the mixed/multiple and Arab ethnic minority groups. *Table 1* shows that the most popular choice for the mixed/multiple ethnic group is biological sciences whilst engineering and technology was the

most popular choice for students of Arab ethnicity. Computer science was the third most popular choice for Black Caribbean, Black Other, Indian and Pakistani students with medicine and dentistry the second choice for Indian STEM students. Almost half, 46% of all Black African STEM students were studying subjects allied to medicine.

Table 1: Popularity of STEM Subjects by Ethnic Group (2012/13)

Ethnic Group	1st	2nd	3rd
White	Subjects allied to medicine (30%)	Biological sciences (22%)	Engineering & technology (13%)
Black Caribbean	Subjects allied to medicine (38%)	Biological sciences (29%)	Computer science (10%)
Black African	Subjects allied to medicine (46%)	Biological sciences (15%)	Engineering & technology (14%)
Black Other	Subjects allied to medicine (38%)	Biological sciences (23%)	Computer science (13%)
Indian	Subjects allied to medicine (32%)	Medicine and dentistry (18%)	Biological sciences (14%)
Pakistani	Subjects allied to medicine (30%)	Biological sciences (20%)	Computer science (13%)
Bangladeshi	Subjects allied to medicine (24%)	Biological sciences (22%)	Computer science (18%)
Chinese	Subjects allied to medicine (19%)	Engineering & technology (17%)	Medicine and dentistry (15%)
Other Asian	Subjects allied to medicine (33%)	Engineering & technology (16%)	Biological sciences (14%)
Mixed/multiple	Biological sciences (27%)	Subjects allied to medicine (23%)	Engineering & technology (13%)
Arab	Engineering & technology (24%)	Subjects allied to medicine (23%)	Biological sciences (14%)
Ethnic Other	Subjects allied to medicine (27%)	Biological sciences (19%)	Engineering & technology (16%)

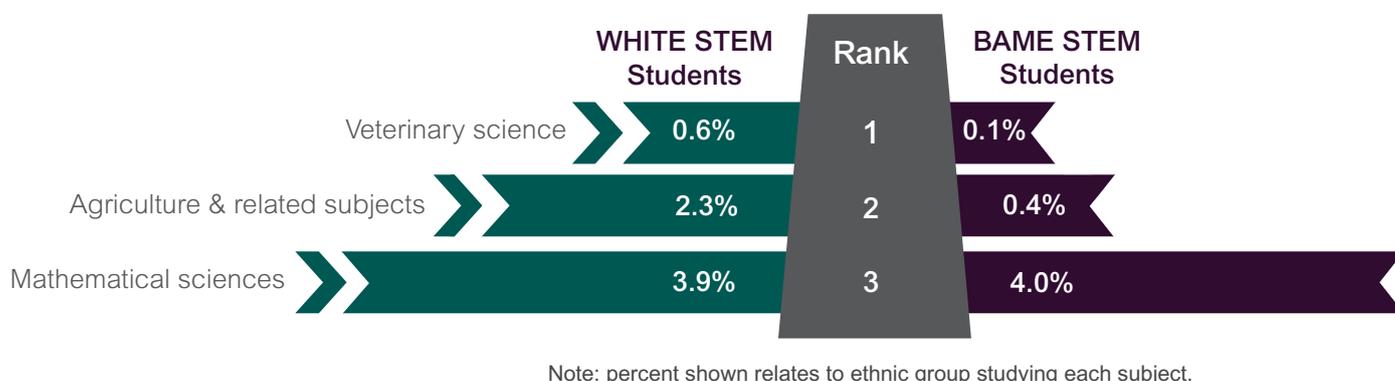
() = percent of ethnic group studying each subject.

On the global stage, China is producing high rates of STEM graduates, with 41% of all university graduates completing a degree in a STEM-related subject.

The least popular STEM subjects for both for white and BAME students were identical and in the same order of

priority i.e., veterinary science, agriculture and related subjects and mathematical sciences (see Figure 4).

Figure 4: Least Popular STEM-related Subjects White vs. BAME Students (2012/13)



The low take up of agriculture and related subjects is a cause for concern given that agriculture is listed as one of the 40 top jobs of the future with farmers being in great demand over the next decade.

University choices

London South Bank University was the institute with the highest proportion of BAME students studying STEM related subjects in 2012/13, 3.2% of all BAME STEM students studying at UK universities were located there (see Table 2). This university was also top of the list in 2009/10 with a slightly higher percentage of BAME STEM students (3.7%). Over the last three years,

there has been no change in the top four choices of universities for BAME STEM students. However, there have been subtle changes. University College London now has the 5th highest proportion of BAME STEM students – a move from 10th place in 2009/10. However Queen Mary University London and The University of Manchester have slipped from 6th and 8th position to 8th and 10th position respectively. Other differences worth noting is that The University of Bradford now features in the BAME STEM top ten whilst The City University, London has dropped out of the top ten with just 1.9% of all BAME STEM students studying there.

Table 2: UK Universities with the Highest Proportion of BAME Students Studying STEM Related Subjects 2012/13 vs. 2009/10

2012/13	%	2009/10	%
London South Bank University	3.2	London South Bank University	3.7
King's College London	3.2	King's College London	3.6
Kingston University	3.0	Kingston University	3.4
The University of Greenwich	2.7	The University of Greenwich	2.7
University College London	2.4	University of Hertfordshire	2.6
The University of East London	2.4	Queen Mary & Westfield	2.6
University of Hertfordshire	2.3	The University of East London	2.5
Queen Mary University London	2.2	The University of Manchester	2.3
The University of Bradford	2.1	The City University, London	2.3
The University of Manchester	2.1	University College London	2.2

1600 out of 2000
is the number of
secondary schools
in England who
do not have any
school leavers
going onto Oxford
or Cambridge

The most striking observation is that the universities listed in *Table 2* for both 2009/10 and 2012/13 are all based in London or in other areas of the country where there are large BAME communities – suggesting that for many BAME students the choice of university is limited to its location.

It has been documented¹ that students from low income households who are generally more debt-averse are more likely to choose a university which allows them to live near home and work during term time. This has two possible negative impacts; i) the student may not choose the most suitable course for themselves and ii) undertaking too much part-time work can be detrimental to their study, risking lower achievement of grades.

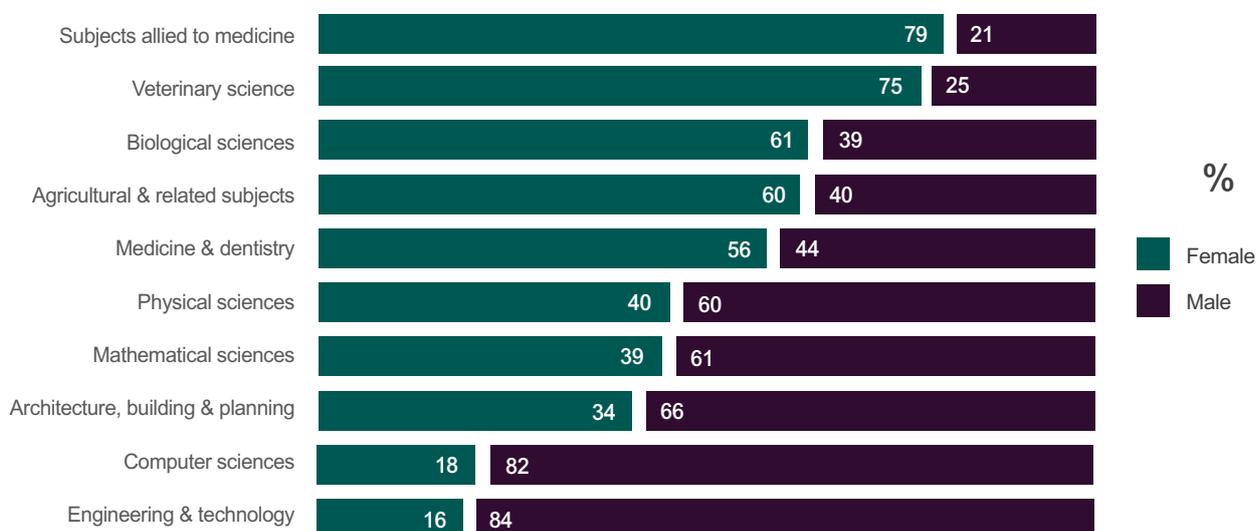
¹ Source: Higher Education in England Impact of 2012 Reforms.

The challenge for employers who are looking for BAME STEM graduates will be to widen their net and look outside their usual milkround universities to make sure they are capturing all diverse talent.

STEM and gender

In 2012/13 there were slightly more women studying STEM subjects than men, 50.6% women compared to 49.3% men. However, there were significant gender differences in the choice of STEM subjects between male and female students. Women accounted for two-thirds or more of STEM students studying veterinary science (75%) and subjects allied to medicine (79%), and more than half of the class in medicine and dentistry (56%), biological sciences (61%) and agricultural and related subjects (60%) (see *Figure 5*). Conversely, women were less than a fifth of those studying computer science (18%) and engineering and technology (16%).

Figure 5: Percentage of all Students in STEM Related Subjects by Gender (2012/13)



A study by the UKRC showed that although similar proportions of white and BAME women obtained undergraduate and postgraduate qualifications in STEM, BAME women are more likely to then go on to work in STEM occupations. The reverse trend was seen for men with BAME men 28% less likely to work in STEM than white men.

A review of the women's STEM subject choices by ethnicity revealed some interesting differences. First and second choice STEM subjects for all women were subjects allied to medicine, followed by biological sciences except for Chinese women whose second most popular subject was medicine and dentistry (see Table 3). More differences start to appear in these women's third choice. Most women chose medicine and dentistry, but for white women the third most popular subject was physical sciences, for Black Caribbean women it was architecture, for Black Other women it was computer science and for Chinese women it was biological sciences. The least popular

subject for BAME women was veterinary science and for white women it was computer sciences.

There have been several government initiatives and private sector projects to attract women into STEM careers. This is having an impact on BAME women from some but not all ethnic minority groups. We urge all STEM employers to review their outreach, attraction and recruitment methods and materials to check whether they are inadvertently excluding any particular ethnicities from their messaging.

Table 3: Popularity of STEM Subjects amongst Women by Ethnic Group (2012/13)

Ethnic Group	1st	2nd	3rd
White	Subjects allied to medicine (46%)	Biological sciences (25%)	Physical sciences (8%)
Black Caribbean	Subjects allied to medicine (53%)	Biological sciences (31%)	Architecture, building & planning (3%)
Black African	Subjects allied to medicine (65%)	Biological sciences (17%)	Medicine and dentistry (4%)
Black Other	Subjects allied to medicine (55%)	Biological sciences (26%)	Computer science (4%)
Indian	Subjects allied to medicine (44%)	Biological sciences (19%)	Medicine and dentistry (17%)
Pakistani	Subjects allied to medicine (41%)	Biological sciences (28%)	Medicine and dentistry (12%)
Bangladeshi	Subjects allied to medicine (36%)	Biological sciences (32%)	Medicine and dentistry (9%)
Chinese	Subjects allied to medicine (30%)	Medicine and dentistry (17%)	Biological sciences (16%)
Other Asian	Subjects allied to medicine (48%)	Biological sciences (18%)	Medicine and dentistry (12%)
Mixed/multiple	Subjects allied to medicine (35%)	Biological sciences (32%)	Medicine and dentistry (10%)
Arab	Subjects allied to medicine (35%)	Biological sciences (21%)	Medicine and dentistry (14%)
Ethnic Other	Subjects allied to medicine (40%)	Biological sciences (25%)	Medicine and dentistry (13%)

() = percent of ethnic group studying each subject

Focus on Russell Group universities

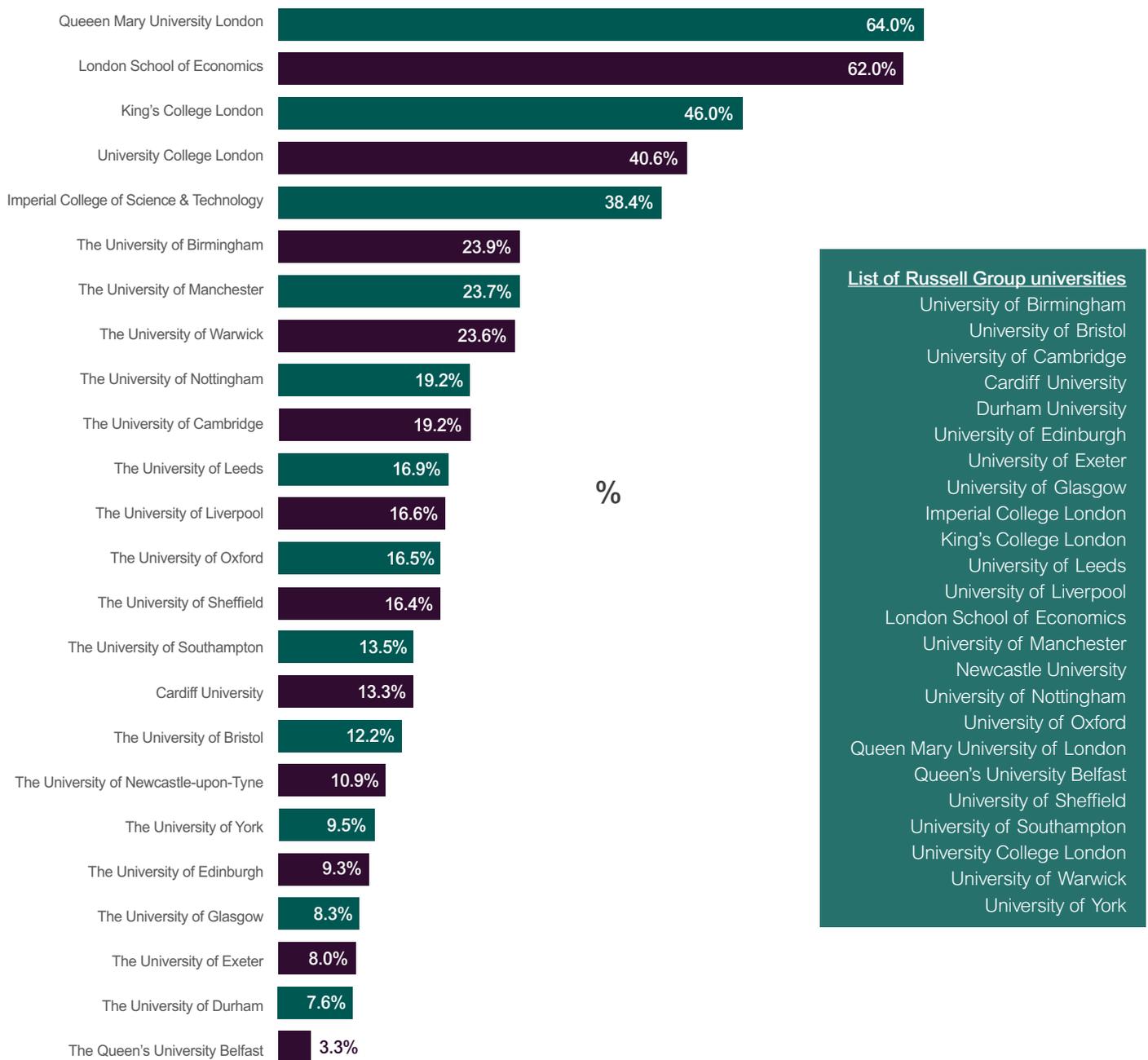
There has been a small increase in the overall number of BAME students studying STEM related subjects at Russell Group universities – 21% in 2012/13 compared to 20% in 2009/10.

BAME students studying STEM-related subjects outnumbered white STEM students at both Queen Mary University London and London School of Economics during 2012/13 where they were the majority, accounting for 64% and 62% respectively of each institutes' STEM cohort. At King's College London they made up nearly half, (46%), of the STEM cohort. The universities with the lowest proportion of BAME STEM students

were The Queen's University Belfast (3.3%) and the Universities of Durham (7.6%), Exeter (8.0%) and Glasgow (8.3%). Figure 6 shows the percentage of students at each Russell Group university who are BAME and studying a STEM-related subject.

The popularity of these universities could be due to location rather than reputation. The top five Russell Group universities are all based in London, which had the largest BAME resident population in England and Wales, (40.2%), at Census 2011. (More information about the representation of BAME people in the Capital's resident population and other cities of the UK can be found in the Race for Opportunity Regional Factsheets).

Figure 6: Proportion of BAME STEM Students Studying at Russell Group universities (2012/13)



“One of our key strategic objectives on our diversity and inclusion agenda is to widen the pool from which we recruit. A vital part of this strategy is to focus on building a diverse pipeline of talent studying STEM subjects. Our Diversity and Inclusion team works closely with our Recruitment teams to ensure that we are advertising through a wide range of channels to ensure this success”.

Janet Hogben, Chief People Officer, EDF Energy

Amongst all BAME STEM students at Russell Group institutes, students of Indian origin have the highest representation at 5.4% in 2012/13, which is an increase on 2009/10 when Indian STEM students made up 4% of the total Russell Group STEM cohort. In comparison to 2009/10 there have been improvements in the representation of STEM students from a Black African, Other Asian and Pakistani background. Previously, each ethnic minority group had less than 2% representation in the Russell Group, but in 2012/13 we can see that they all now have over 2% representation. It is also worth noting that the Ethnic Other/Arab group has increased from under one percent to 1.3% (see Table 4).

Table 4: Representation of UK-Domiciled BAME Students in STEM at Russell Group Universities out of total BAME STEM Population at UK Universities 2009/10 and 2012/13

Ethnic Group	2009/10 (%)	2012/13 (%)	Observations
Indian	4	5.4	Marked increase
Mixed/Multiple	3	3.2	
Chinese	< 2	1.9	Slight increase
Other Asian		2.4	
Pakistani	< 2	2.3	Improvement in representation for these 3 ethnicities
Black African		2.4	
Black Caribbean	< 1	0.5	
Black Other	< 1	0.1	
Bangladeshi	< 1	0.7	
Ethnic Other / Arab	< 1	1.3	

Whilst Black African STEM students have the largest representation amongst all BAME STEM students at UK universities overall, they are not as successful at Russell Group institutes where Indian STEM students have more than double the representation of Black African STEM students.

The percentage of BAME STEM students undertaking postgraduate taught studies at Russell Group in 2012/13 was higher than for white STEM students, 14% and 10% respectively.

Case Study: Shell / Work Experience Programme

Shell is an Anglo-Dutch multinational oil and gas company and is the fourth largest company in the world in terms of revenue. Winners of the Race for Opportunity Future Workforce Award: Large Organisations in 2014, this is how they did it:

Motivate

BAME employees have traditionally been under-represented in the energy industry. Part of Shell's Diversity & Inclusion strategy in the UK is to raise awareness of STEM careers to BAME students and to build a diverse talent pipeline.

Since 2009, Shell has run a work experience programme in the UK for BAME students aged 16-21 through its African Network. The programme aims to increase the diversity of Shell's workforce and give young people business experience in STEM careers.

Act

Students are placed into departments for a 2-3 week placement based on their interests and a dedicated 'buddy' helps them navigate the corporate environment.

Senior leaders encourage employees to host students and take on placements in their own team, giving the students direct exposure to leadership. They also promote the programme internally, alongside the African Network.

Shell seeks feedback from host teams and students, which is incorporated into the programme, and annually reviews the success rates of eligible students' applications to Shell. Shell uses its graduate recruitment criteria to select Work Experience Programme candidates and delivers CV/interview workshops for students to increase their success rate in future employment applications.

Impact

Feedback from the students has been incredibly positive. Over half of penultimate year students have secured internships at FTSE 100 companies, including Shell, and alumni have been accepted at Russell Group universities. In 2012 over 20% of applicants to Shell internships declared they were from a BAME background.

The programme continues to grow with sponsorship and support from senior leaders, and in 2014 Shell is hosting 60 students in London and Aberdeen.

STEM in Secondary education

The landscape

In January 2014, 1 in 4 (25.3%), of all pupils at state-funded secondary schools in England were from a BAME background and at state-funded primary schools BAME children made up almost 1 in 3 (29.5%) of all children.² Among pupils at independent schools in England, 28.7% were from an ethnic minority background.³

In England, English, science and mathematics are compulsory subjects for all pupils from Year 7 through to Year 11. The latest Key Stage Four exam results for science⁴ show that in 2014 59.1% of students gained A*- C grades, with girls, (61.8%) continuing to outperform boys (56.2%). Whether these early successes will translate into future workers in the STEM field remains to be seen.

A longitudinal perspective of attitudes among Key Stage 3 students (2008-2010) on STEM subjects and careers⁵ revealed significant differences in opinions between White British and Non-White British students. Whilst 20.7% of White British students would consider working in building and construction, this was only true for 13.1% of Non-White British students and a career in manufacturing and production appealed to 15.9% of White British but only 11.1% of Non-White British students.

On the other hand, 36.9% of Non-White British students would consider work in science, mathematics and statistics compared to 31.0% of White British students, and when it came to working with computers and IT 35.1% of Non-White British students would consider these options compared to 30.5% of White British students. There was a small difference in attitude towards engineering, 22.8% of White British students would consider this subject compared to 21.1% of Non-White British students. A mammoth difference in opinion is observed in

² Source: Department for Education, January 2014.

³ Source: Independent Schools Census 2014.

⁴ Source: Joint Council for Qualifications GCSE (Full Course) Results - 2014.

⁵ Source: STEM subjects and jobs: A longitudinal perspective of attitudes among Key Stage 3 students, 2008-2010, March 2011.

attitudes towards a career in environment, plants and or animals – whilst 30.8% of White British students would consider these only 20.5% of Non-White British students would.

Case Study: Royal Air Force / Schools Road Show (RAF/BAE Systems and Royal Academy of Engineering)

The Royal Air Force (RAF) have been members of the Race for Opportunity campaign for several years and is committed to diversity and inclusion in their workforce. Short listed for the Race for Opportunity Collaboration & Partnership – Value Chain Award in 2013, this is how they did it:

Motivate

BAME representation in the RAF remains considerably lower than in UK society, and improved recruitment is the highest priority on its diversity agenda. Raising awareness of the RAF's excellent career paths is hampered by enduring misconceptions of the organisation that become barriers. The RAF faces a particular recruitment imperative with 50% of the workforce in engineering specialisations.

The Schools Road Show is there to reach students facing specific obstacles on their journeys through education into employment, to challenge stereotypes, increase STEM awareness and position the RAF as a future employer of choice.

Act

This STEM education in theatre initiative, supported by interactive workshops, associated curriculum support resource and national competitions will engage with 25,000 students and their teachers in 2013. Students eligible for Free School Meals form the core target group. Supported by the Royal Academy of Engineering and assisted by the Transformation Trust and the Engineering Development Trust, this initiative demonstrates the feasibility of multiple collaborations between partners with shared diversity objectives.

The Schools Road Show enthused students about maths and science and raised awareness of STEM careers, as well as providing teachers with engaging curriculum support and careers information.

Impact

Over 100,000 students and teachers have been reached to date, and the RAF is on track to exceed the 2013 target of 25,000 students and their teachers. This has achieved a positive image of the RAF amongst target audiences, and has helped the RAF to achieve a better understanding of challenges faced by schools in deprived areas.

Employment

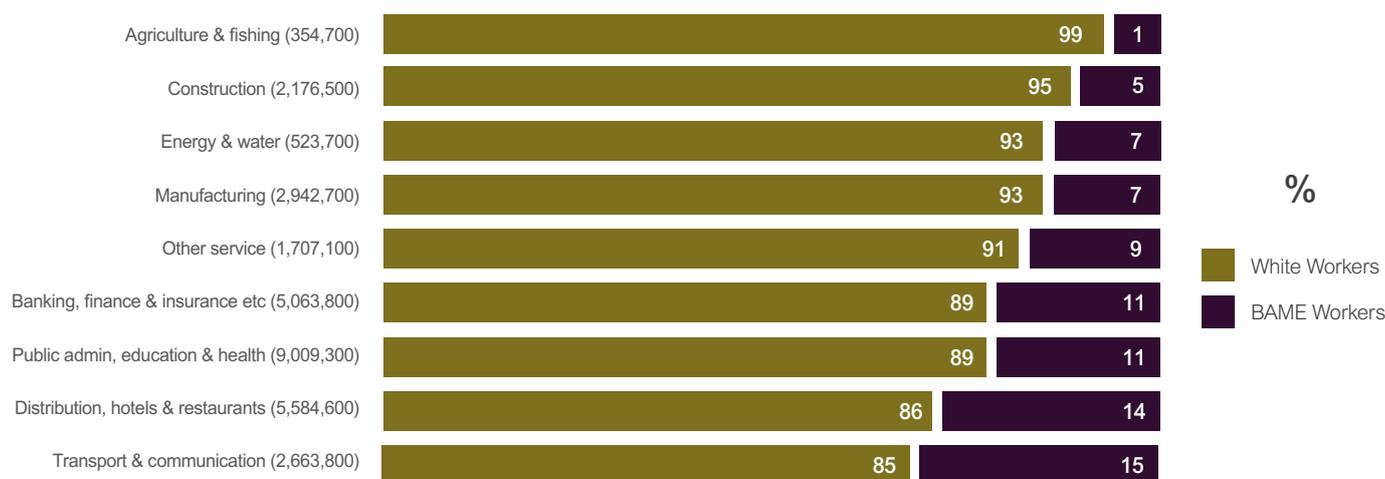
STEM and employment

Industry of employment by ethnicity

Data from the Annual Population Survey for the latest period available (October 2013 - September 2014) highlights the low representation of BAME

workers in agriculture and fishing, energy and water, manufacturing and construction industries, but a fair representation in public administration, education and health (see *Figure 7*).

Figure 7: Industry of Employment by Ethnicity, UK, percentages, Oct 2013 - Sep 2014



Race for Opportunity's recent *Race at the Top* report spotlighted the fact that not only are UK sectors such as construction, and agriculture and fishing closed off to BAME workers, there is also a significant lack of BAME representation in their management levels. It found that BAME people holding management positions were clustered in just three sectors i.e., public administration, education & health; banking, finance & insurance; and distribution, hotels & restaurants.

Disappointedly the report showed that over the five year period from 2007 - 2012, there had been minimal change within the construction, manufacturing and energy & water sectors, where the majority of management positions continue to be held by the white demographic.

Apprenticeships are increasingly becoming an alternative route for young people to acquire the valuable skills and experience required by the

labour market to ensure success. However, in 2011/2012 Asian people made up just 4.1% of the apprenticeship population, despite making up 7.5% of the wider UK population. In fact, Black and Asian people continue to be under-represented in high-paid sectors – less than 1 in 25 black and Asian apprentices entered engineering (3.2%) construction (3.4%) and electro-technical (3.7%) in 2011/12.

One million NEETs aged 16-24, 182,000 construction jobs to be filled by 2018. Yet just 7,280 completed a construction apprenticeship in 2013.

Source: A cross-party parliamentarians' inquiry, February 2014

Case Study: National Grid

National Grid is a British multinational electricity and gas utility company headquartered in London that is committed to the development of a diverse talent pipeline. Winners of the Race for Opportunity Developing Talent Award: Attraction in 2014, this is how they did it.

Motivate

National Grid is committed to enhancing its pipeline of BAME leadership talent, in line with the business's ambitious eight year growth plan. A diverse workforce ensures an increased range of ideas to innovate and provide customer satisfaction.

National Grid monitors the percentage of BAME employees, per quarter, within all levels, for hires, leavers, promotions and workforce representation. These metrics highlighted a clear gap in BAME representation at senior level.

In order to increase the number of BAME senior managers, the Diversity & Inclusion and HR teams worked together to develop a programme to investigate and remove any existing barriers to BAME progression.

Act

Workforce metrics and understanding gained from interviews with a breadth of BAME employees about their career experiences, informed the development of targeted interventions including:

- Unconscious bias training for line managers and recruitment assessors.
- The recruitment team engaged specialist agencies.
- Launch of BAME development programme, Ambassadors of Perspective Integration, in 2012/2013 with progress reported to senior leaders.
- BAME cross-sector mentoring programme.

The HR and D&I teams collaborated with different internal business functions and external organisations to deliver these initiatives.

Impact

- The number of senior BAME managers went from one out of 160 (0.6%) in 2011, to three out of 167 (1.8%) in 2013.
- The number of BAME managers increased from 69 managers out of 1,243 (5.5%) in 2011, to 81 out of 1,303 (6.2%) in 2013.
- The overall BAME population increased from 7.8% in 2011, to 8.9% in 2013.

Race Diversity Networks

The importance of employee networks cannot be understated. The Race for Opportunity Benchmark shows that employers with vibrant employee networks were more likely to have progression and larger populations of BAME employees. In addition, we looked at how advanced BAME network groups in organisations were operating at different performance levels with respect to management and senior management representation. A bit like flexible working, it is likely that the networking groups in organisations with good representation are more likely to be more advanced – and, again, this may act as a feedback loop. The most advanced organisations were far more likely to have BAME networks with a budget and have a focus on professional

development and business opportunities. Networks where there is senior leader engagement or executive sponsorship and where the network is acting as a support community for employees:

- add value to the business by contributing to policy/development;
- provide valuable input into client facing projects;
- bring opportunities to enhance customer service in an increasingly global market place;
- increase awareness and connectivity with colleagues across the wider population and give BAME employees the confidence to apply for promotion and/or lateral moves to broaden their skills portfolios.

Case Study: EDF Energy EDF Energy Black, Asian and Minority Ethnic (BAME) Network

EDF Energy were Winners of the Race for Opportunity Employee Network Award in 2013 and this is how they did it:

Motivate

- The BAME Network was established in November 2010 as an evolution of the African and Caribbean network with a strong business focus and delivery plan aligned to EDF Energy's Diversity and Inclusion strategy. The Network has a formal structure with work streams, senior business champions and a sponsoring Director.

Act

- The Network grew its membership from 25 individuals in 2010 to over 200. It gained company sponsorship for the documentary "The Story of Lovers Rock" to develop stronger links with employees and customers from minority backgrounds. The movie was shown to sell out audiences in over 58 cinemas across the UK.
- The network developed a pilot mentoring scheme for BAME Engineers and Scientists. Mentees were mentored by the Chief Technical Officer and his leadership team. To ensure effectiveness and support, coaching and training was provided to mentors and mentees.

- The Network also gained company sponsorship for an Indoor Athletics Challenge with 6 Colleges in the Olympic Boroughs. 60 athletes were coached in track and field sports by Olympic coaches and competed in a grand finale in March 2013 at Lee Valley Indoor Athletics Centre.

Impact

- Over 60% of athletes surveyed said the Indoor Athletics Challenge improved their life skills such as punctuality, team work, desire to help others succeed and self-belief. Employability workshops have been run for over 130 students.
- 80% of mentees that applied for the Emerging Talent Scheme were successful. Employee Engagement Survey results for BAME employees increased in the Central Technical Organisation where the mentoring scheme was run.



What actions can employers take on employment:

1. Outreach to non-Russell Group universities.
 2. Monitor all stages of the recruitment process into STEM roles to understand BAME progress, and to check for drop out rates.
 3. Unconscious-bias training for recruiters and everyone involved in the selection process from milkround through to selection panel.
 4. Diverse selection panels. Include BAME people in the initial sifting, interviews and assessment centres.
-

Relevant Race for Opportunity research and toolkits

Research

- Race to the Top
- Race into Higher Education
- Aspiration and Frustration
- Race to Progress: Breaking down barriers
- Race into Work
- Leadership and Cultural Identity
- Race and Recruitment
- Race at the Top

Toolkits

- How to do Diverse Recruitment
- Monitoring Ethnicity
- 5-Points for Progress
- Unconscious Bias
- Bridging the Value Gap
- Best Practice Recruitment Tips for Employers
- Best Practice Recruitment Tips for Recruitment Agencies
- Best Practice Recruitment Tips for Job Seekers
- Mentoring
- Race for Opportunity Business Case for Race Business Cards
- Labour Market Status by Ethnicity

**Visit: www.raceforopportunity.org.uk
to download research and toolkits.**

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- The Campaign for Science and Engineering (CaSE), Improving Diversity in STEM, May 2014.
- Unilearn 'Under-representation by gender and race in apprenticeships'.

Research sources and assumptions

The data used in this factsheet is mainly from the Higher Education Statistics Agency (HESA) Student Record database. The data covers the academic year of 2012 - 2013 and is compared in some places to HESA Student Records for the academic year 2009 - 2010.

The data used refers to UK domiciled students only; it does not include overseas students who are studying in the UK (unless specified).

Students falling under the 'unknown' category have not been added to the White group or any of the ethnic minority groups. Instead, they have been either disregarded or represented as 'unknown' in the analysis.

STEM related subjects include the following subjects:

- Medicine and dentistry
- Subjects allied to medicine
- Biological sciences
- Veterinary science
- Agriculture and related subjects
- Mathematical sciences
- Physical sciences
- Computer science
- Engineering and technology
- Architecture, building and planning

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Crown Prosecution Service
Deloitte LLP
Deutsche Bank AG London
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Home Office
HSBC Bank
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