

Understanding student motivations and career aspirations so that we can effectively support our graduates

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Abstract

With graduate employability existing at the heart of the Higher Education (HE) agenda, we review student motivators, and the aspirations of life science, pharmacy and chemistry students for entering into HE. We evaluate this particularly in reference to Black and Minority Ethnic (BME) students, as their career aspirations and motivators for studying may play an important role in determining degree attainment and consequent graduate opportunities.

Introduction

Graduate employability exists at the heart of the HE agenda (Pegg et al. 2012) with student motivators for entering HE and career aspirations playing an important role in determining degree attainment and consequently the graduate opportunities available to them (Atkins & Ebdon, 2014). There is a general lack of knowledge concerning student motivators, aspirations and also engagement in extracurricular activities and their subsequent effect on final employment destinations. Compounding this is a persistent national disparity in UK domiciled Black and Minority Ethnic (BME) student attainment (Stevenson, 2012), whereby the proportion of White students graduating with first or

2.1 class degrees is significantly higher than those from BME groups. Reasons for this have remained elusive even after controlling for a wider range of factors; and ethnicity remains the most significant factor in degree attainment (Broecke & Nicholls, 2007). Most graduate opportunities require a first or 2.1 class degree, and BME graduates are substantially less likely to be employed within six months of graduating than their White peers (Zwysen & Longhi, 2016).

The introduction of the *Teaching Excellence Framework* sets out that not only teaching excellence matters, but also states the need to reduce inequality to ensure more students fulfil their aspirations and progress on into their chosen careers. Kingston University has a significant number of BME students (51% of all students and up to nearly 90% on some science courses) with many courses having their own distinct ethnic and gender make up. Overarching this, are significant differences in BME value added (VA, the differences in attainment set against expected targets) scores for individual courses. Where, a VA score over 1 is good but a score below 1 indicates a significant attainment gap between BME students and their white counterparts. For example,

Pharmacy correlates with positive BME attainment (gap, 0%, 1.12, VA greater than 1), whilst Pharmaceutical Science and Biochemistry have lower VA scores (0.44, 0.46, VA less than 1, HESA 2014/15). Compounding this, the recently published Wakeham Review of STEM Degree Provision and Graduate Employability (2016) alludes to the identification of several disciplines where graduate outcomes appear to be particularly poor, and where it has been inferred there is a lack of delivery of graduate skills. Therefore, it is paramount to understand student motivators and aspirations in order to develop the supporting frameworks to enable students to leave with the best possible degree and graduate skills they can attain.

Considering these factors, our overall aims were to 1) compare and ascertain BME student motivation for undertaking HE in comparison to other groups, 2) understand career aspirations so expectations can be met and 3) determine the motivators for attending and engaging with extracurricular activity through employability events.

Methodology

An ethically approved (Kingston University Centre for Higher Education Research & Practice Ethics Panel) paper-based survey was developed that included the fundamental research questions along with seeking information on the represented student groups, equality data, degree subject and year of study. The survey was also tested for coherency on a small group before being generally released to the wider cohort. Undergraduate students at level 4 to 6 were surveyed, who were studying a range of different courses (including biological sciences, biochemistry, pharmacology, biomedical science, nutrition, pharmaceutical science and pharmacy). Many of the selected courses had their own distinct ethnicity and gender and value added scores (i.e. different attainment gaps). Focus groups were also run to gain qualitative data and provide additional evidence to support the quantitative findings. Focus groups were run by randomly inviting participants from

target and control group courses (for example those with either positive BME attainment or lower value added scores). Data analysis of numerical data was managed and performed in Microsoft Excel through the design of pivot tables and presented for output either tabulated or graphically.

Results and Discussion

A total of 399 undergraduate students completed the survey within the School of Life Sciences, Pharmacy and Chemistry at Kingston University across levels 4 to 6 representing a broad range of courses. A diverse range of ethnic groups was reported, which were found to have distinct profiles for different courses (for example Biochemistry; Black 29.7%, Asian, 34.5%, White, 31%, Other, 4.8%; Biomedical Science; Black 28.3%, Asian, 48.5%, White, 14.7%, Other, 8.7%). The data revealed a high number of BME students within the School, 77.8% (level 4, n=198), 83.7% (level 5, n=166) and 65.7% (level 6, n=35), the remaining percentage being made up of students classified as White. The high proportion of BME students is likely to reflect previous observations that post-1992 institutions (such as Kingston) attract markedly more students from BME backgrounds than pre-1992 establishments (Thomas & Jones, 2007) and often those from the communities and regions in which they are located (Tatlow, 2013). In a similar manner, we also analysed gender responses, which showed a strong bias to female students, 73.3% (level 4, n=198), 73.8% (level 5, n=166) and 52.9% (level 6, n=35), the remaining percentage being made up of male students. A comparison of BME females (71.2%) to White females (67.5%) in the School revealed slightly more BME females; for males there was a greater proportion of White males (32.5%) to BME males (26.6%). Literature has previously indicated the potential biasing of ethnic minority students towards traditional professional or vocational subjects some of which include pharmacy and biomedical science, particularly in female Asian students (Connor et al., 2004) However, in this study, no biasing was shown between

the different ethnic female groups. There is also a generally accepted view that more BME females participate in HE than males. The general female bias towards these subject areas likely reflects a national dominance of women entrants into the biosciences compared to other sciences such as engineering (Thomas and Jones, 2007). Overall, within Kingston these results demonstrated a general preponderance of both BME and female students studying these bioscience subject areas compared to other subject areas (that is when compared to the mean BME and female population within Kingston University, which is 51%, 52.6%, respectively

(www.offa.org.uk/agreements/Kingston%20University.pdf). We also reviewed student backgrounds upon entry (figure 1) and their types of entry qualifications (figure 2), comparing BME and White students. There were more White students declaring they were the first in their family to attend university, whilst there appeared very little difference between groups in the type of entry qualifications presented.

Differences in types of HE entry qualifications have been reported before for different ethnic groups especially for 'A' level qualifications between Black, White and Asian students, where 29% of Blacks, 55% Whites and 72% of Asians had 'A' levels and where Black students were more likely to possess other types of qualification e.g. BTEC (Connor et al. 2004). For this study, we have not drilled into the individual ethnic groups (rather an overall BME grouping) and this could be the reason why little variability is seen between the two groups in types of entry qualifications. It does not provide any information to the level of attainment in these pre-entry qualifications, although students will only have been admitted if they had reached at least the minimum threshold entry point tariffs. Connor et al. (2004) alludes to just over 80% of students under the age of 21 on HE entry having 'A' level qualifications. The percentage of our student's entering with 'A' levels stood at just below 60% for

both BME and White groups demonstrating a much broader and similar range of level 3 qualification entry points for both BME and White students. In terms of qualifications, we also asked students what degree classification they aspired to. This may seem an obvious question with an obvious answer but could be linked to the BME attainment gap, and the possible effects of prior aspirations. Our investigation revealed that BME (96.4%) and White (95.2%) students had closely matching aspirations for obtaining a first class or 2.1 degree and therefore the initial drive to what they were aiming to achieve does not appear to be a differentiating factor in explaining the attainment gap.

We also reviewed what expected salaries the students were anticipating upon graduation. We split this analysis into reviewing student perceptions at each level (figure 3) and to those between BME and White students (figure 4). The most anticipated salary range was found to be between £20,000-24,999, for each level. At level 4, 77.2% and level 5, 84.9%, anticipated salaries from £20,000 to 35,000 plus, but at level 6, only 64.5% anticipated a salary in this range. This may represent a more realistic outlook by level 6 as these students may have had a greater opportunity to review the current job market. The greatest difference in anticipated salary range was found between BME (29.6%) and White (45.2%) students in the salary range £20,000-24,999. Nonetheless, this did not mean that BME students did not anticipate the highest salaries; in fact 17% more BME students than White anticipated salaries greater than £30,000. It is important to consider not only the ambition of students in terms of the final grades they hope to achieve but in their perceived earnings. Ashby & Schoon (2010) found that, in particular, career aspirations and ambition value were important factors that were linked to adult earnings. Therefore, motivating and encouraging students in their goals at the earliest opportunity is essential.

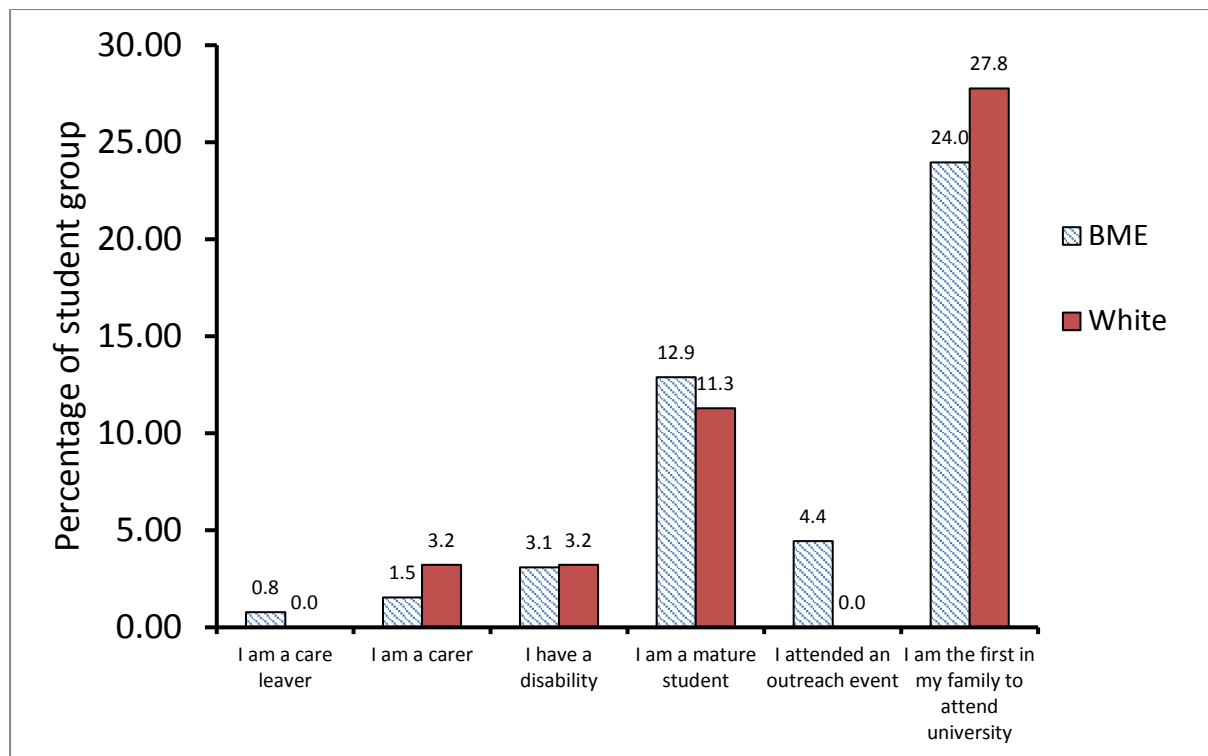


Figure 1 A comparison (%) of BME and White students and their different backgrounds.

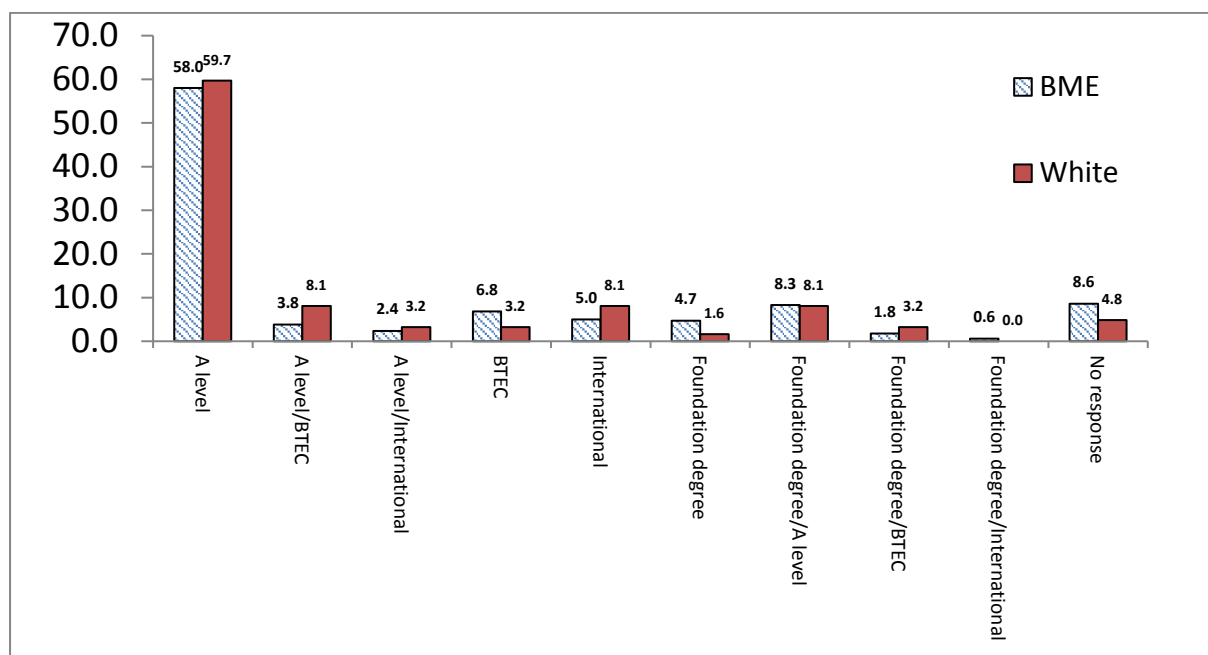


Figure 2 A comparison (%) of the types of entry qualifications of BME and White students.

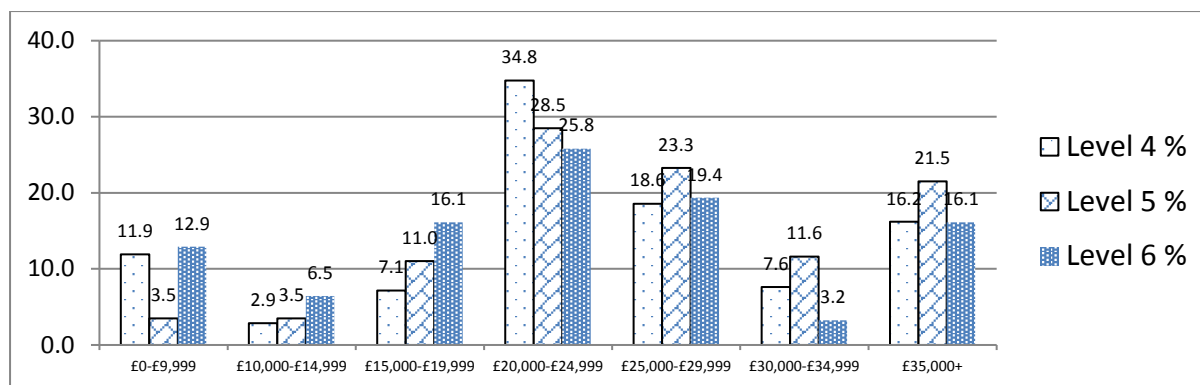


Figure 3 A survey comparison (%) of anticipated salaries upon graduation between levels 4 to 6.

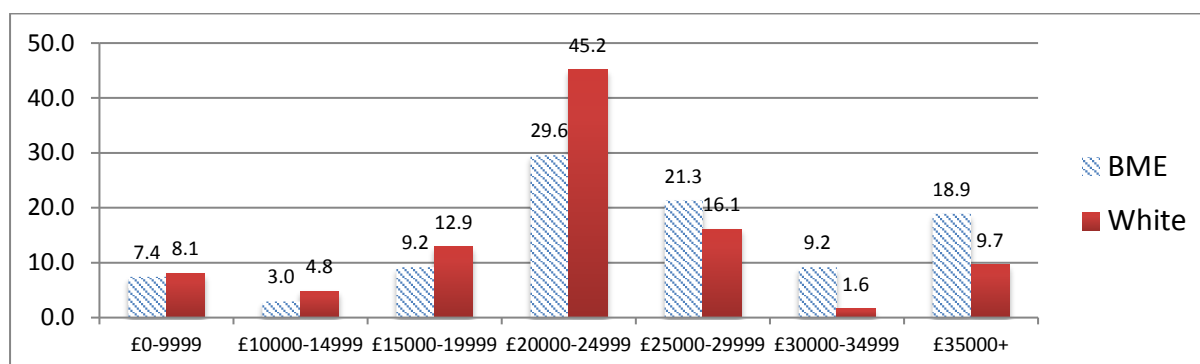


Figure 4 A survey comparison (%) of anticipated salaries upon graduation between BME and White students.

Our findings have shown so far that BME and White students have very similar aspirations of achieving a good degree. Nonetheless this does not yet reveal if there are any differences in the motivators for attending university and choosing their degree subjects to determine any associated link. The three primary reasons for all students wanting to attend university were ‘to improve career prospects’ (over 70% of respondents), ‘advance knowledge’ and ‘develop academically’ (figure 5). The data linking the most frequent response to improving students’ labour market prospects was found to be in agreement with that of Connor et al. (2014). The need to attend ‘for my career plans’ and ‘gain a university experience’ were not so significant with around 50% corresponding to these responses. Most of the responses were similar between the BME and White groups. However, the greatest differences (4.7, 10, 13.7% respectively) appeared around the need to ‘meet new people’, ‘experience new places’ and ‘move away from home’. Therefore, some BME

students may have a different university experience. Evidence exists that students can succeed in HE without participating in the complete social life offered. Nonetheless, social opportunities do allow the occasion for students to access information from peers, and learn and progress in new ways (Atkins & Ebdon, 2014). Therefore, BME students may attend university for more instrumental reasons than White students and may not have the same interactions or be so involved in on-campus activities such as societies and other extracurricular activities (Stuart et al. 2009). In light of this, we asked what would motivate students to attend careers workshops and events. The primary drivers (Figure 6) for both BME and White students were that they had to fit their schedule and be related to their course. The third highest response from White students (59%) was that the event should be worth something towards a module, significantly different when compared to BME (42.4%). This response was also mirrored in that more White

(27.9%) than BME (16.9%) wanted formal recognition or a prize for attending. Interestingly, one of the recommendations from a Department for Business Innovation and Skills research paper (Artes et al. 2011) is that opportunities for applying credit be sought for employability activities. Yet, there are arguments that students should be taking more responsibility in developing their own employability skills. Based on the view that BME students are often studying at university from the communities and regions they are located in, many students in this category are known to commute; this would certainly impact on the desire for less BME students to want to attend employability events that have been arranged for example in the evenings (figure 6). Therefore, the careful timetabling of these events is required so as not to disadvantage any students in gaining experience at acquiring additional graduate skills and experiences at such events.

In terms of why a student had chosen their degree subject, the most popular response was interest in subject, with other reasons, including for career prospects or goals, substantially lower (figure 7). There was an almost 15% greater tendency for White students to state interest in their subject as the main reason for choosing it compared to BME students. White students also stated previous academic experience (10% greater) as a reason for choosing their subject. This could indicate that more White students relate to, and are better prepared from their previous academic experience in identifying with, their chosen subject. There has been anecdotal evidence that students from BME backgrounds may be influenced to take subjects viewed as potentially more prestigious, such as pharmacy or with 'medical' (e.g. biomedical science) in the title, that they do not have so much personal interest in (Stevenson, 2012).

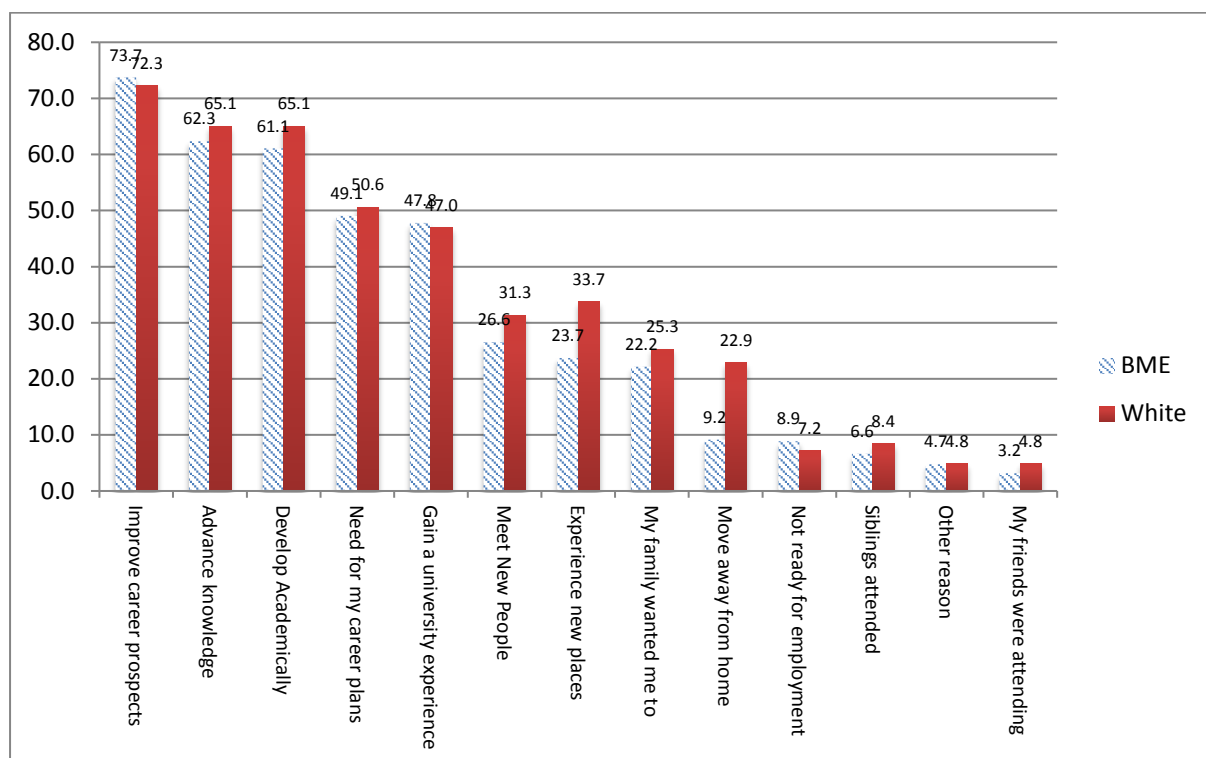


Figure 5 A survey comparison (%) of reasons to why students decided to attend university between BME and White students.

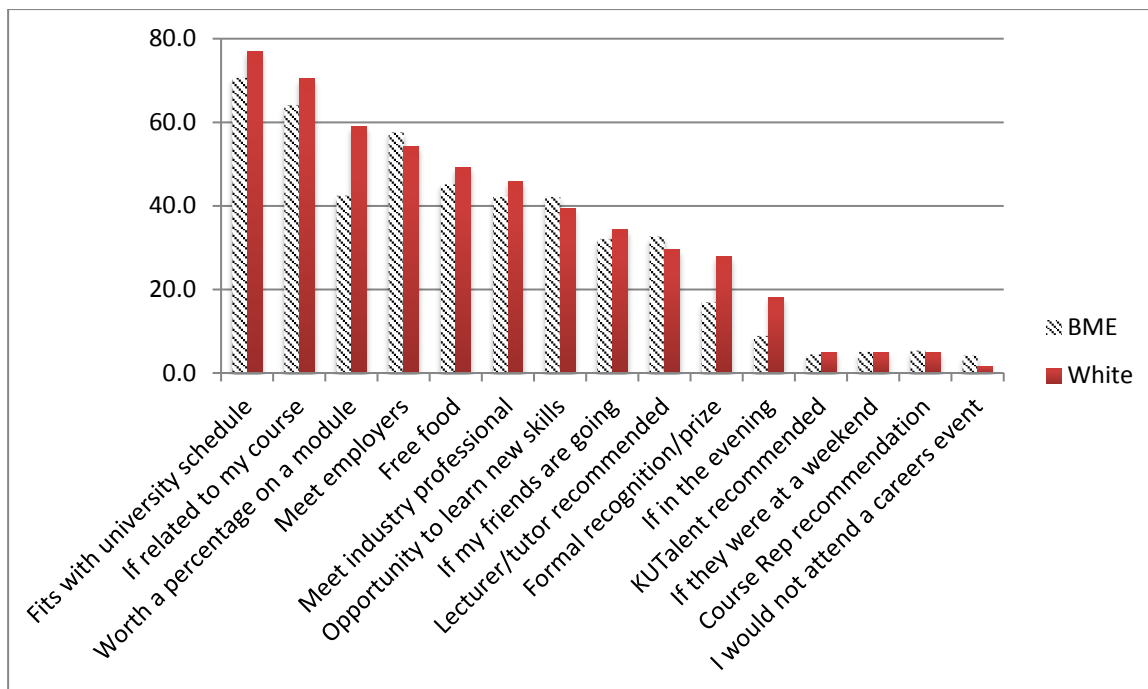


Figure 6 A survey comparison (%) of what would motivate students to attend career workshops and events between BME and White students.

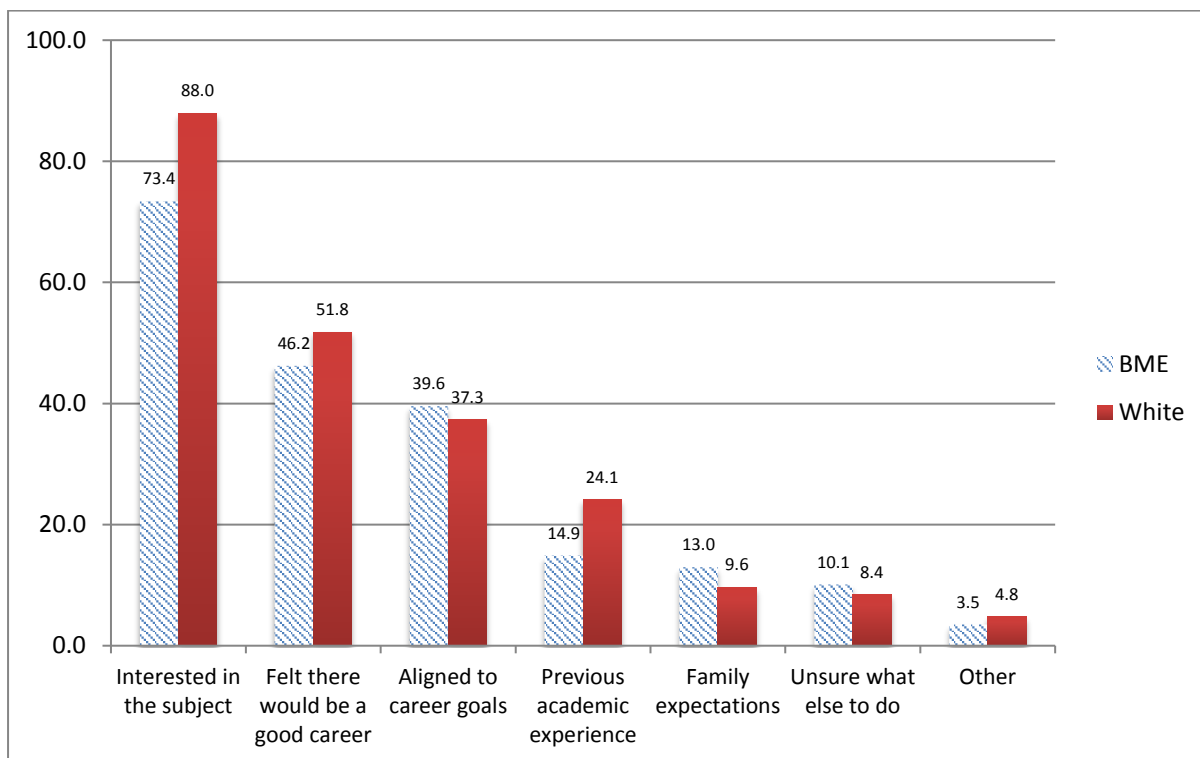


Figure 7 A survey comparison (%) of reasons why students choose their degree subject comparing BME and White students.

Conclusion

Our results have highlighted a predominance of both BME and White females studying the bioscience related subjects at Kingston University. BME

males were the least represented. There was little or no difference in the type of entry qualifications, backgrounds or the aspirations to obtain a good degree (first class or 2.1) between BME and White

students. There were differences in salary expectations but these did not show any particular ethnic group underselling their potential. Nonetheless, we did find differences in motivators for attending university and the course chosen between BME and White students. More White students stated new places and meeting new people and moving away from home as reasons to come to university. Therefore, potential social aspects could act as differential motivators between some BME and White students, leading to differences in interactions with peers and the learning experience. These interactions could also affect how BME students engage with extracurricular activities, such as employability events, and therefore miss out on vital experiences. More White students responded positively about their previous academic experience impacting on their choice of degree subject and

therefore may be better prepared in anticipating and understanding the challenges of their subject area. Compounding this, a lot fewer BME students stated interested in the subject as a reason for choosing this, where more interest could represent more engagement and better attainment. The demonstration of differences between the BME group and other groups will be used to facilitate the identification of new employability support needs for our students; and how these may be used to influence how we engage students with, and how we deliver, employability interventions to meet career aspirations in the future. Particularly important is the utilisation of the findings to benefit target groups such as BME in bridging the attainment gap and to allow the choices and skills needed for fulfilling professional employment whilst at the same time informing best practice.

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