



Royal Society of Chemistry

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The Lord Krebs
House of Lords
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20th February 2014

Dear Lord Krebs

The Royal Society of Chemistry is pleased to present below evidence for the House of Lords Science and Technology Committee inquiry into international STEM students.

The Royal Society of Chemistry is the world's leading chemistry community, advancing excellence in the chemical sciences. With 48,000 members and a knowledge business that spans the globe, we are the UK's professional body for chemical scientists; a not-for-profit organisation with over 170 years of history and an international vision of the future. We promote, support and celebrate chemistry. We work to shape the future of the chemical sciences – for the benefit of science and humanity.

The evidence we present for numbers and demographics of international STEM students in the chemical sciences are based on data provided by the Higher Education Statistics Agency and are rounded to the nearest 5. Answers to other questions are based on consultation and discussion with other Learned Societies, higher education institutions, and members of the Heads of Chemistry UK group.

1.1. Importance of international higher education students to the UK

International higher education students make a major fiscal contribution both in terms of the fees they pay to the universities and the broader spending they incur while in the UK – more than £10.4 billion a year by 2015 according to BIS.^{1,2} Undergraduate tuition fees of international chemistry students (ca. £18-25k per student) are more than double those of EU/UK students, and make a vital contribution to many UK universities' business models. It is essential that our universities are globally competitive for international students.

1.2. **The Government must make it clear to the international community that genuine students from overseas are vital to and welcome in the UK and that only non-genuine students are being excluded.³ As evidenced by multiple course closures (see paragraph 3.1), this message is not currently clear.**

2.1. Numbers and demographics of international STEM students in the UK

Since changes to the UK's immigration law were introduced in 2010, overall growth in the number of overseas (non-EU) undergraduate and PhD chemistry students studying at UK universities has

¹ <http://www.bis.gov.uk/assets/biscore/higher-education/docs/e/11-980-estimating-value-of-education-exports.pdf>

² <http://www.centreforum.org/assets/pubs/migration-a-liberal-challenge.pdf>

³ http://www.rsc.org/ScienceAndTechnology/Policy/EducationPolicy/Immigration_Chemistry.asp

continued. However, the number of Masters students coming to the UK to study chemistry has decreased by nearly 14% (Figure 1).

2.2. Chemistry student numbers from the top three non-UK destinations, China, France and India, reveal some striking differences (Figure 2). Numbers coming from France at all three levels (Undergraduate, Masters, and doctorate) have declined, particularly at Masters and doctorate levels. In contrast, undergraduate and Masters students from China have increased, whereas Masters student numbers from India have decreased by 49% between 2011 and 2012. Prior to the changes in immigration law in 2010, Indian chemistry students at Masters level were showing one of the fastest rates of growth amongst overseas students. A recent report from the British Council suggests that with over 600 million people under 25 years old, by 2020, India will have the largest tertiary-age population in the world and will have a graduate talent pipeline second only in size to China.⁴

2.3. The opportunities for the UK to engage with India through education are considerable, and it is vital that these opportunities are not lost because of our immigration policies: Indian institutions interviewed by the British Council⁴ perceive other countries and their institutions to be more welcoming to Indian students and more responsive to inward mobility to India.

3.1. Provision of particular STEM taught masters and other postgraduate courses

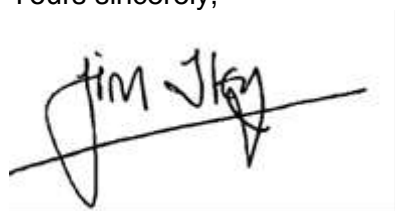
Several of the chemistry departments interviewed reported that the 2010 immigration policy changes had negatively affected their provision of taught masters and other postgraduate courses. As a direct impact of the policy changes, one university department highlighted the closure of both an MSc programme (Molecular Biotechnology) and an MRes programme (Bio-sensing Technology) because they were aimed at the international market, India in particular. The changes have also put under threat their MSc programmes in Science Communication and Advanced Forensic Analysis. Additionally, some international partnerships with HEIs, especially in India, have fallen through despite having invested significant time and resource into their development.

4.1. Effective mechanisms for communicating the rules arising from immigration policy

It is generally felt that, for students, the problem with the new immigration policy is primarily that it is very difficult to navigate the system and understand what is required when applying for a student visa. Many universities stated that they did not have sufficient resources to help staff understand the new immigration policy or to keep their website information on the issue up-to-date. Some universities have had to create a specific team dealing with immigration policy as it relates to obtaining visas, whilst others have had to put in place additional resources to enable students to obtain visas in time to start their programme.

4.2. **The Immigration Service should work with universities to share best practice throughout the sector and provide consistent advice and clarity on issues such as attendance monitoring – whether this requires swipe cards, registrations or thumb prints.**

Yours sincerely,



Professor Jim Iley
Executive Director, Science and Education

⁴ http://www.britishcouncil.org/sites/britishcouncil.uk2/files/understanding_india_report.pdf

Figure 1 Domicile (overseas, EU and UK) of all chemistry students at UK universities for each of the years 2004/05-2011/12⁵

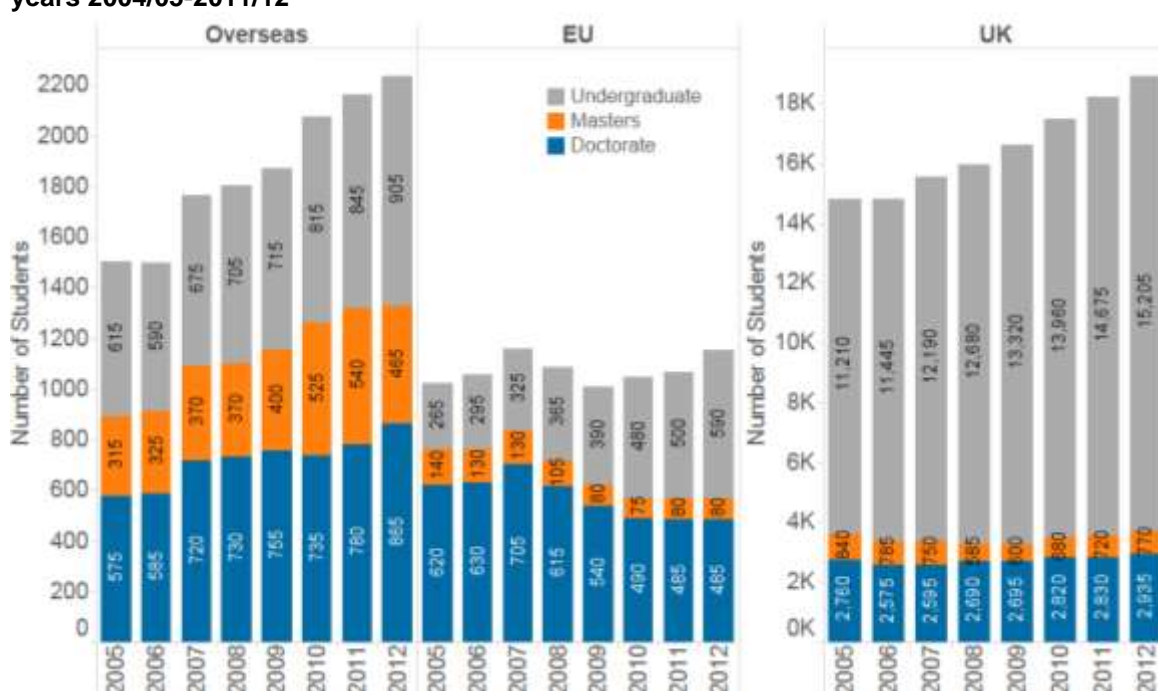
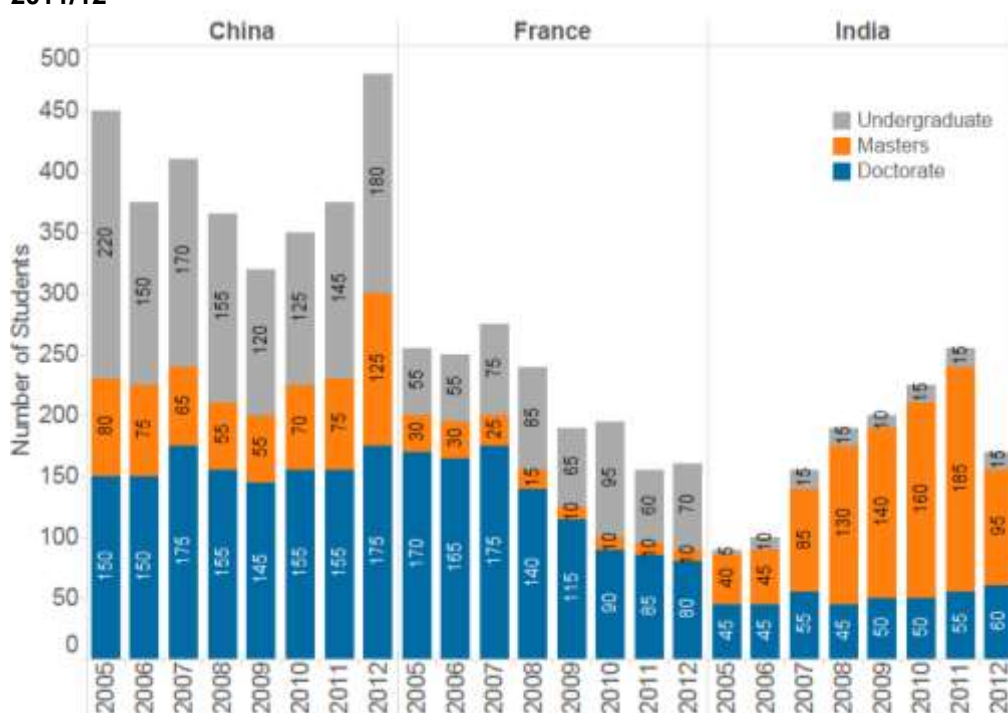


Figure 2 Total chemistry student numbers at UK universities by top three countries of origin, 2004/05-2011/12⁵



⁵ Higher Education Statistics Agency, http://www.hesa.ac.uk/component/option,com_pubs/Itemid,122/

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