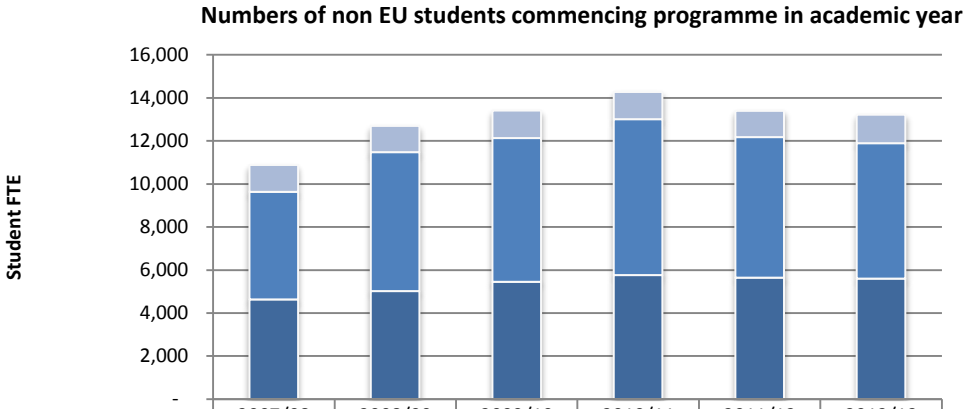
House of Lords Science and Technology Select Committee on the impact of immigration policy on demand from international STEM students

The Engineering Professors' Council (http://epc.ac.uk) represents the majority of academic engineers in the UK, with 79 university members comprising nearly 6,000 academic staff. We are grateful for the opportunity to contribute to this important inquiry and have consulted with our membership in offering the following evidence and views.

Q1. How have the numbers and demographics of international STEM students in the UK changed since the introduction of policy reforms on immigration in this Parliament?

1.1 The following chart shows the 6-year trend in new students starting on engineering programmes (Engineering Professors' Council analysis of Higher Education Statistics Agency (HESA) figures published 13 February, 2014 - total for engineering subject codes H1-H9[1]).



	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Postgrad (research)	1,248	1,223	1,278	1,261	1,227	1,322
Postgrad (taught)	4,996	6,448	6,677	7,245	6,523	6,298
Undergraduate	4,641	5,027	5,457	5,771	5,656	5,604

1.2 While detailed (subject-level) intake figures for the 2013/14 academic year will not be available until February 2015, a poll of Engineering Professors' Council members[2] in October 2013 indicated lesser reductions than those seen in the previous two academic years in recruitment of non EU students (although still significant reductions in some institutions). We hope that this is indicative of the downward trend being arrested and that the benefits of some recent welcome changes to the regulations and an appetite for open dialogue with the university sector on this matter are starting to be seen. We welcome the opportunity for continued dialogue with the Home Office and UK Borders Agency on the policy, perception and administrative impacts of regulation change.

[1] H1: General Engineering, H2: Civil Engineering, H3: Mechanical Engineering; H4 Aerospace Engineering; H5: Naval Architecture; H6: Electrical and Electronic Engineering: H7: Production and Manufacturing Engineering: H8: Chemical, Process and Energy Engineering: H9: Other Engineering

[2] Engineering Professors; Council 2013/14 Enrolments survey. 86 departments from 50 universities responded, representing around half of universities in the UK with UG and/or PGT students registered as studying at least one of the engineering disciplines.

Q2. What is the evidence currently available of an adverse effect of the changes to immigration rules on prospective international STEM students choosing to study in the UK?

2.1 In addition to the official statistics above, the British Council and the network of recruitment and admissions tutors and support staff across the UK are reporting increasing interest in study in other English-speaking countries such as the US, Canada and Australia.

Q3. Which UK immigration policies are affecting international STEM students and what issues are they causing?

3.1 While the following policy and administrative impacts are not exclusive to STEM subjects, their impact does tend to be disproportionately high because students choosing such subjects (particularly at postgraduate level) are more likely to be focused on specific career paths. They choose their country of study based on a combination of quality of education and career opportunity. The administrative cost burden also falls disproportionately on STEM departments because of the high proportion of non EU students on these programmes (see also answers to questions 9 and 10).

3.2 Our members have mentioned the following in particular:

a) Students are often seeking to gain some work experience to go along with their investment in a UK education so the removal of the Post Study Work visa scheme in April 2012 has had a detrimental impact, particularly in certain markets – anecdotally, the Indian sub-continent.

b) The change in policy regarding the requirement for company sponsorship to remain in the UK after studies on a Tier 2 visa, rather than an automatic 1 year visa extension, while theoretically straightforward, companies seem reluctant to do the paperwork. The possibility of finding employment in the UK (and it only needs to be a possibility) was an attraction for international students – many see this avenue as being closed off to them now, with much better such opportunities in the US (STAPLE Act), Australia (Post Study Work visa with a minimum 2 year stay) and Canada (well-publicised investment in attracting overseas students).

c) The time limits on leave to remain in the UK make it increasingly difficult to do consecutive master's degrees.

d) The negative media attention in the UK recently has created an image of the UK as unwelcoming. While there might be a gap between the reality and the perception, it will take some time to overcome this gap. Issues of particular concern include:

- Making it compulsory for students to apply for two Confirmations of Acceptance for Study (CAS) if they require a pre-sessional English Language programme to prepare them for their main programme of study.
- Increasing the cost of a Tier 4 visa by 10% each year for the next two years.
- Introducing cash bonds for visitor visa holders which could be rolled out to Tier 4 students from high risk countries in the coming years.
- Increasing the minimum salary received from a registered sponsor to change to a Tier 2 visa from £20,000 to £32,000. The median salary for an engineering graduate in the UK is around £26,000 so for engineers, the £32,000 hurdle seems to have been set a little too high.
- Asking landlords to check the visa status of any international students who want to rent their properties.
- Introducing a levy for international students to access NHS services.

3.3 These, together with the UK's higher tuition fees compared with other EU countries, seem to be making study in the UK much less attractive.

Q4. What impact might the provisions in the Immigration Bill currently before Parliament have on international STEM students?

4.1 See 3 above.

Q5. How are the impacts of immigration policies on STEM students monitored, both by organisations and nationally? Is there sufficient collection and analysis of data to enable links between cause and effect to be understood?

5.1 There is sufficient data collection, certainly at individual university level: there has to be, given the importance of non EU students culturally, academically and financially to institutions. But while detailed sector-level data are collected, they are not available quickly enough (see above re 2013/14 intake figures not being available until 15 months later) to use and synthesise with qualitative evidence (which to our knowledge is not systematically captured) to be able to take appropriate Government-level action which provides the backdrop to individual institutional decisions.

Q6. Do reforms to immigration policy since 2010 limit the competiveness of UK higher education institutions in attracting international STEM students?

6.1 As outlined in 3, above perception is key.

Q7. Do higher education institutions and the Government have effective mechanisms in place for communicating the rules arising from immigration policy to prospective international students?

7.1 While no-one in UK higher education disagrees with the need to ensure that non-genuine applicants are deterred from coming to the UK and that fraudulent institutions are weeded out, the sector would appreciate clear and accessible regulations, consistency in their application and consultation on the consequences of their implementation. Members report "vague rules which are open to interpretation" which can often mean institutions implementing the new rules in different ways and thus inadvertently risking breach, or not having been advised of a rule change at all (or with insufficient lead time) meaning that out-of-date information may be passed on to staff and students. In addition, new rules have been known to be introduced part way through a recruitment cycle which means that a) institutions will not have had the opportunity to resource the service (with appropriate levels of staff and information technology) and b) has a significant impact on whether students decide to pursue the degree programmes for which they have been offered a place. This latter point means that universities are reporting the need to increase substantially the number of offers made relative to the places available as the proportion who do not take up offers is increasing. This is, however, a high risk strategy, as if all who were made an offer take up a place, it is highly unlikely that the organisation will have been able to plan to provide the necessary staff and resources. There have been instances of universities which have found more students than they could realistically accommodate turning up to take up their offered place, which has a detrimental impact on the students' experience and hence, future recruitment.

7.2 Consultation, clarity and accessibility in communication and appropriate lead times to introduce change and enable institutions to plan are vital and any assistance that the Borders Agency can provide to universities in this regard would be welcomed.

Q8. Are international STEM graduates finding it difficult to pursue employment in the UK after completing their studies at higher education institutions?

8.1 Yes, the Post-Study Work (PSW) visa was an effective route into professional work and this has been removed. While this may have stopped the people who used PSW scheme to do low-skilled work, it has had the effect of "throwing the baby out with the bathwater". In particular, non EU students find it very difficult to find employment from companies willing to pay them the appropriate salary to meet the minimum thresholds and sponsor them to change their visa status from Tier 4 to Tier 2.

8.2 Many of the large companies and those in their SME supply chains, to which engineering and technology students are likely to apply, work with defence-related contracts which, understandably, have strict restrictions regarding eligibility due to nationality. It seems they will leave positions unfilled for some time rather than going through the paperwork of sponsoring for a Tier 2 Visa. Unfortunately, these companies are not always explicit about their eligibility restrictions and a student may go through the whole job application process before being rejected. It would be helpful for non EU STEM graduates to have access to a resource specifying which employers accept applications without nationality restrictions and certainly better communication with employers is needed.

Q9. Are immigration policies and rules jeopardising the provision of particular STEM taught master's or other postgraduate courses at your institution?

9.1 This is entirely dependent on the individual institution's appetite for risk and the ability (and willingness) to cross-subsidise across very different subject areas. Member institutions are certainly commenting that some postgraduate engineering programmes are under increasing pressure owing to the "perfect storm" created by:

- reduced demand from non EU students;
- concurrent significantly reduced demand for master's programmes from UK students as a result of the introduction of increased fees at undergraduate level;
- increasing costs of delivery and infrastructure investment (which are above the fee which can be charged for UK and EU students).

9.2 Members indicating that programmes had been closed were most likely to come from departments of electronic and electrical engineering and/or computer science where the biggest fall in numbers had been seen.

Q10. Do you consider the sustainability of the current business model at your, or all, UK higher education institutions at risk from falling international student numbers?

10.1 Yes. The skills gap in UK engineering has been well-documented. The UK produces about half the number of engineering graduates needed to rebalance its economy. Engineering UK says that by 2020 the UK will need twice as many engineering graduates. Significant numbers of, particularly postgraduate, overseas students are highly able and choose to come to the UK to develop specialist skills which have significant value in the UK economy. UK university engineering departments have therefore sought to meet this demand and have been successful in attracting significantly higher proportions of non EU students than in other subject areas[3] to their programmes. The £9,000 capped fee for undergraduate UK and EU students introduced in 2011/12 does not cover the increasingly costly business of delivering a high quality undergraduate engineering education. While a fee which recovers the full cost of programme delivery can be charged for non EU students, this doesn't mean that in all cases there is sufficient margin available to cross-subsidise the cost of delivering high quality engineering programmes to UK and EU

[3] Undergraduate students from outside the European Union ("non EU") represent around 12% of all students studying disciplines other than engineering and technology. For engineering and technology students, the comparable figure is nearly a quarter. For postgraduate students, the proportion of non EU non engineering and technology students is around one third, the comparable figure for engineering and technology students is over half. (Engineering Professors' Council analysis of HESA data).

students, as well as fund future investment in infrastructure and equipment. The recent reduction in numbers of non EU students in university engineering departments, together with concurrent significantly reduced demand for master's programmes from UK students as a result of the introduction of increased fees at undergraduate level and the increasing costs of delivery and infrastructure investment are introducing significant financial risk to the "business model". But the definition of "business model" must include the cultural and academic as well as the financial. Engineering is a global discipline which has always relied on the input of ideas and talent from around the world from academic staff, professional engineers and students alike. These regulatory and policy changes not only impact the ability to recruit students but also the ability to recruit academic staff and to conduct high quality research and it is increasingly difficult to attract the overseas talent needed for academic programme delivery or to conduct collaborative research projects with overseas partners. It is essential that the UK continues to seek out and welcome this talent.

20 February, 2014