

## SCIENCE AND TECHNOLOGY SELECT COMMITTEE

### International STEM students

### Oral and Written evidence

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**Professor Robert Allison, Loughborough University, Professor Gina Rippon, Aston University and Professor Colin Riordan, Universities UK International Policy Network – Oral evidence (QQ 32-41)**

*Evidence Session No. 3*

*Heard in Public*

*Questions 32 - 41*

TUESDAY 4 MARCH 2014

Members present

Lord Krebs (Chairman)  
Lord Dixon-Smith  
Baroness Hilton of Eggardon  
Baroness Manningham-Buller  
Lord O'Neill of Clackmannan  
Lord Peston  
Earl of Selborne  
Baroness Sharp of Guildford  
Lord Wade of Chorlton  
Lord Willis of Knaresborough

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**Examination of Witnesses**

**Professor Robert Allison**, Vice-Chancellor and President, Loughborough University, **Professor Gina Rippon**, Pro Vice-Chancellor for International Relations, Aston University, and **Professor Colin Riordan**, Vice-Chancellor of the University of Cardiff, Chair of Universities UK's International Policy Network and Chair of the UK Higher Education International Unit

**Q32 The Chairman:** I would like to welcome our second witness panel this morning. In a moment, I would like to invite you to introduce yourselves for the record. If you have any brief comments to make by way of an opening statement, please feel free to do so, but also please do keep any comments brief because we have quite a lot of questions to get through and we want to be able to tease out some of the issues with you. You are obviously aware that we are interested in hearing from you this morning, first, the facts, figures and trends in international student numbers in STEM in your institutions, as well as any comparative figures across the sector as a whole. Later on, we want to move on to consider whether any changes that you have observed are related to immigration policy. Finally, we want to look at the current Immigration Bill and the changes that have been proposed there. That is the shape of the discussion for the next hour or so. Perhaps I could now invite Professor Allison to lead off by introducing himself for the record.

Professor Robert Allison, Loughborough University, Professor Gina Rippon, Aston University and Professor Colin Riordan, Universities UK International Policy Network – Oral evidence (QQ 32-41)

**Professor Allison:** My Lords, good morning. Can I thank you for inviting me to present evidence to you today? I am Vice-Chancellor at Loughborough University. We have 16,500 to 17,000 students. Between 2,500 to 3,000 of those are from overseas: undergraduates, taught postgraduates and research postgraduates. Interestingly, we have a range, from some students who are only with us for about a fortnight to others who are with us for their full degree. We currently have one campus in the East Midlands where, interestingly, we both admit and graduate more students in engineering subjects *sensu stricto* than any other university in the country. We are also about to open a campus on the Queen Elizabeth Olympic Park site in London because of the opportunities that will afford us, particularly around overseas taught postgraduate students. In saying that as an introduction, you will sense that some of the issues that you are considering today are of particular interest to my university.

**Professor Rippon:** I am Gina Rippon. I am from Aston University. We are a relatively small university; we have just over 10,000 students. We have just over 100 undergraduate courses, and 44% of those are STEM courses. We have just over 60 postgraduate courses, and 45% of them are STEM courses, so we have quite an emphasis on STEM education. Just over 20% of our students are overseas students and 45% of the overseas undergraduates are STEM students. Some 15% of our overseas postgraduate taught students are STEM students, and about 46% of our overseas postgraduate research students are STEM, so we have a big emphasis on STEM at Aston. We also have a big emphasis on employability, and we have particular courses—pharmacy, optometry, biomedical sciences—where the requirement to complete a pre-registration course has been significantly impacted.

**Professor Riordan:** My name is Colin Riordan. I am vice-chancellor of Cardiff University. I am here representing Universities UK. I am chair of the UK Higher Education International Unit. The university itself has 28,000 students. It is a comprehensive university with medicine, dentistry and a large range of allied health subjects including pharmacy, optometry, nursing, healthcare studies and a number of others. About 13% of that 28,000 total are international students. We have very wide-ranging international interests, and, of course, almost the whole range of STEM subjects.

**Q33 The Chairman:** Thank you very much indeed. I would like to kick off by asking each of you to respond in turn to the question of whether there is evidence in your particular institution—Professor Riordan may like to comment more generally across the sector—of changes in numbers of overseas students in STEM coming to your institution or applying to come, and how that has changed over the past few years, both in numbers and in quality. Is it particular subjects? If there have been changes, are there particular countries of origin that have been affected? Perhaps, Professor Allison, you can start off with this.

**Professor Allison:** Actually, at Loughborough, in some subject areas and for some countries, it is good news. I will give you two examples of that. One is that we, as a university, have particularly strong links with Brunei. At the moment, we have more students at our university from that country than any other in the UK. The majority of them are studying STEM subjects, and for the full period of the degree. The majority of them are undergraduates. Another very good example of what I think is an excellent initiative nationally, and one that we have benefited from, is the Science Without Borders programme with Brazil that you may have heard of.

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Knowing that I was going to be in front of you today, I met those students at Loughborough yesterday evening. We currently have 78 of them with us for a year on undergraduate programmes. We have a group of around 20 with us on taught postgraduate programmes, and three PhD students. They tell me that their arrival in the UK and the whole of their experience so far has been completely positive. I am delighted with that, because I am sure we would all want that to be both the reality and the perception of UK higher education in countries like that. There are some other countries where there is more of a challenge for us. One is India—and I suspect we are not unique there—where we have seen a notable decline. In fact, our overseas students from that country have dropped by almost 50% in the last couple of years.

Interestingly, although this is partly our own personal recruitment policy—I ought to make that clear—we have found that students who we have lost through that route tend to have been STEM students in engineering. We have picked them up by recruiting students from China, in terms of our total overseas student target. Those have predominantly been students in business and economics. The country has changed for us, and the degrees or subjects that those students are wishing to study tend to vary with us as well. My colleagues ought to comment about whether that is a similar trend for them. So some good news, but also some challenges for us.

**The Chairman:** What about the quality of students? Has there been any change?

**Professor Allison:** The quality, for us, has not suffered, whether they are home or EU students, or students from other parts of the world. We set standards that, for us, are really part of the benchmark of the institution. The challenge for some parts of the world, and of course you will appreciate this, is not necessarily their willingness and ability to learn, it is their understanding of the English language. We have found that in some countries that is a challenge for us. Also, in some areas, the challenge is actually to determine whether what they say they are capable of is actually truly what they are capable of. However, the academic standard per se for us has been a relative constant, because we have that as a really important part of our recruitment process across the board at Loughborough.

**The Chairman:** Before I hand over to Professor Rippon, as a final point you mentioned that a drop in Indian students coming to study engineering had, in terms of overall numbers, been offset to some degree by an increase in the number of Chinese students coming to study business and economics. Does it affect the viability of your courses in engineering if you have a significant drop-off of overseas students?

**Professor Allison:** It does not affect the viability, inasmuch as we are very fortunate at Loughborough to have very strong recruitment in many of our engineering subjects. Some of them are at the margin of what 17 and 18 year-olds would understand engineering to be. We recruit at an A\* and two As, and with that can maintain a satisfactory number to make those programmes sustainable. However, as I am sure you will all appreciate, the sort of broad financial model that the university works to as a whole at the moment requires us to recruit a certain number of students from overseas, as well as a certain number of home students. It is about that balanced picture across the piece, rather than any one particular degree or part of the academy.

**Professor Rippon:** The postgraduate taught issue has been the most significant for us. The data I have since 2009 have shown a decline of 70% in our postgraduate taught numbers

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across the board, and 14% since last year. That is particularly in subjects allied to medicine, which is one of the areas we are strong in. Our engineering numbers did take something of a hit, but nothing as significant as the subjects allied to medicine, such as pharmacy, biomedical sciences, optometry, et cetera.

With respect to country-specific data, we have shown a decline of 69% in students from India since 2009, in particular because the subjects those students were coming to study were allied to medicine.

**Q34 Lord Wade of Chorlton:** Could I just get some clarification there please? When you say that the numbers have fallen, is it that the total number of your students has fallen, or the students who have come from abroad? Does that mean that the people who have not come from abroad have been made up by UK students?

**Professor Rippon:** Not at this stage, no. It is the students who have come from abroad who have fallen. Our UK student numbers have been—

**Lord Wade of Chorlton:** Overall, the total number in the university has fallen, then.

**Professor Rippon:** Yes, because of the decline in overseas students.

**Lord Wade of Chorlton:** I see, right.

**The Chairman:** Professor Rippon, what about the question of the quality of overseas students?

**Professor Rippon:** Quality is not an issue. We have set admissions criteria that students have to meet. It is not because of failing quality that numbers are dropping; it is because there are fewer of them applying. We have application and admission statistics separately.

**The Chairman:** I would like to follow with the question that I asked Professor Allison about the impact on particular courses, or on the financial model of the university as a whole.

**Professor Rippon:** We had two undergraduate courses and a postgraduate diploma that were particularly affected. We have a BS in pharmacy that required a pre-registration year post-graduation, which the loss of the post-study work visa affected, and similarly for optometry. We also had an overseas diploma for pharmacy students. For students who had qualified as pharmacists overseas but wished to practise in the UK, there was a diploma course to upskill them. Again, that required a pre-registration year. We had to restructure those courses very quickly, and that required a certain amount of interaction with, for example, the Royal Pharmaceutical Society to see if they would become sponsors.

With respect to postgraduate taught courses, we had thriving MScs in pharmacology, pharmaceutical sciences and biomedical sciences that were hit badly by the loss of overseas students. We restructured the courses, so those courses ran, but it required us to do some fast footwork.

**Professor Riordan:** As far as Cardiff is concerned, we have continued to see quite strong growth in overseas students, including in STEM. What has shifted is where they are coming from. Like everybody else, we have seen reductions in students coming from India, but also from Pakistan and Bangladesh. I notice, looking at the overall figures for the sector, specifically HESA's total entrants by subject from non-EU countries, which I am sure you have had, that computer science, for example, has been quite badly hit. There has been a large drop, not just percentage-wise but in actual numbers of students, from over 10,000 to

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under 7,000 in three years. I have no way of proving that, but I would not be surprised if that was linked to the drop in the numbers of students from India, because we tend to get quite large proportions from those countries. It might be interesting to look at whether one could relate subjects to certain countries and see whether there is a correlation there.

**Q35 The Chairman:** I will ask a follow-up question on the impact. Presumably, because you have had growth rather than decline, there has not been an impact on either the business model of the university or the course structure.

**Professor Riordan:** It probably has to a degree, because we would have expected higher growth, given the investment we have put in. These things obviously do not happen by accident. We have put very focused investment into an international office, marketing, recruitment activities and all the rest of it. We are aiming at increasing the proportion of international students to 20% over the next three or four years, which ought to be perfectly doable. The issue, then, is that we really want a fair wind for that. We would like the support for that, essentially.

**The Chairman:** So you have seen growth, but not as much growth as you would have liked to in relation to your strategic plan or business plan.

**Professor Riordan:** Yes.

**The Chairman:** We heard in the earlier session this morning about the difference in trajectory, particularly for Indian students coming to the UK versus going to Australia, the United States and Canada. While we have been going down, they have been going up. I wonder whether any of you look at this in relation to what is going on internationally, and what happens in your own university compared to what is happening in other countries.

**Professor Riordan:** Certainly, we are told by our students and our agents—we have an office in India as well—that it is the loss of the post-study work opportunities, or at least that they are nothing like as extensive as they were and do not compare well with other countries such as Canada, and indeed the US and other of our competitors. The students say, “We want to have actual experience of working in the UK”. That is bound to be good for your CV. They also want to have a chance to redress some of the debt, in some cases, that they have got themselves into by studying here, so it matters very much to them.

**Q36 Baroness Sharp of Guildford:** I want to pick up the same questions that Lord Willis was asking in the previous session, which I think most of you sat in on. How far is it the Immigration Rules, per se, and how far is it the way in which the rules are administered and operated? Is it this whole question of perception on the part of overseas students, particularly Indian and Pakistani students, as to what the new rules are? Is it the number of changes in those rules that have taken place? How far is this post-study work issue, and the problems of bureaucracy associated with that, really important? How far is it changes in currency, when we have seen particularly the Indian rupee dropping in value? Insofar as it is perception, how far are your institutions trying to counter that perception? There is a range of questions there, I am afraid.

**Professor Allison:** As you might expect, my initial response is that the answer is as complex as your question. However, I would make one or two comments. The first is that I think there is some variation from country to country. I do not think you can turn to one country and say, “Actually, it applies there, so it applies over here”. I also think that, certainly if I



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think about my institution—I do not want to say this for all universities; I should not speak on behalf of other institutions—in countries where we put effort in because we want to make a difference, we can make a difference. I could give you some specific examples.

The issue, for me, interestingly—and, Baroness Sharp, it is in part in the comments you made—is the balance between reality and perception. I do not know, Lord Krebs, whether any of your Committee has seen this report. It is an independent report that was published in January 2013 by two of my colleagues. It is about perceptions. They interviewed nearly 1,000 students from overseas, some of whom were currently studying in the UK and some of whom had finished. I will give you two sets of comments, if I could turn to page 8. If it would help, I can provide you with a copy of this report.

**The Chairman:** That would be very helpful, yes.

**Professor Allison:** There are positive comments in here. You may want to receive a copy so that you can feel good about the positive comments. However, let me just give you a couple of examples of perception. One example is, “Applying for a visa is such a hassle, and actually the banking services do not really help you either”. It is not necessarily just about the visa per se, it is about other things that come together that appear to create a higher hurdle for these people than otherwise might be the case. Another is, “I would advise people to avoid coming to the UK for any matter, if they do not want to struggle with the visas. There are many other countries that are more accepting, and give you the impression that they want you to study there more”. There is something, as you perhaps implied in your question when you referred to Australia, not just about what we are doing but about how that is perceived by students who then compare us with other countries.

I turn to one final comment. Have we not occasionally heard this from our own children: “I have advised my younger brother to look elsewhere for postgrad studies. The UK is definitely not sending out good signals at the moment, and it will probably harm their universities in the future”? Now, remember, that is the perception. It is not necessarily the reality, but the question is how one overcomes those issues as much as the complexities that not all but predominantly young people see that they have to overcome in relation to other countries, be it Australia or Germany, for many Indian students thinking of engineering, or the United States, as comparators and I might also say competitors.

**Professor Rippon:** With respect to whether it is the rules themselves, obviously the removal of the post-study work visa is a specific issue. The financial requirements are also significant, differentially for STEM students, because the fees are higher for STEM students. As I understand it, we are partly looking at that as an issue.

With respect to the rules, it is perhaps not the rules per se but their complexity and lack of stability. You just feel that you have a handle on the particular criteria and something changes—the list of banks that are acceptable for the money to be held in changes. We had one student who had a visa refused because she had had the correct amount of money in her bank account for 27 days and it was supposed to be 28 days. It is the application of the rules, as well as the rules themselves.

Perception is a key issue, particularly in these days of social media. I do not know whether you are aware of the suggestion that there was going to be a visa bond applied for people who were coming for short periods of time. Something appeared on the Home Office website. It was removed fairly quickly when it was clear that the suggestion was for

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students from specific high-risk countries, even if they were bringing their families back for graduation, to be required to provide a bond of £3,000 a head. Within 24 hours, that had gone viral on social media. We were having students saying, “We do not want to come to this country now if that is what is happening”. I think the perception is very important.

**Professor Riordan:** Yes, the rules are complicated, expensive and ever-changing. That point has been made, I think, and it does make it difficult, as does the way they are applied. We also had an example of a student who dipped £20 below the level that you are supposed to have in your bank account for a day because of some timing-of-transfer issue, and it took us letters, phone calls and days of work to get that sorted out. You do get the impression that the rules, on occasion, can be applied in such a way that it is rather off-putting for the applicant.

On one or two other points that you made, we—I think all of us; every university—put huge effort into welcoming students and into explaining and supporting. We go to the airport to pick them up. We look after them when they are here, and we can see the results of that in the student satisfaction levels that we have, which are high.

On exchange rates, as far as the rupee is concerned that is a relatively recent development. The fall in applications from India happened before the economic crisis, or economic change, in India began to bite. It will be quite difficult to relate to this, because exchange rates are always going up and down. Obviously, it is very hard to prove causation in anything, but this is a complicated area. It is quite easy to see that when the visa rules changed, something happened in India. You could read it in all the newspapers.

**Baroness Sharp of Guildford:** One of the remarks made by Daniel, the student representative, was that the designation of a high-risk country had not changed. He instanced the fact that Brazil was regarded as a high-risk country and Argentina as a low-risk country. Does that affect you at all—this designation of high-risk country?

**Professor Riordan:** It would contribute to the perception problem. Brazil is a very particular case because it has invested hundreds of millions of pounds of its own Government’s money in sending its students here. If you add up the whole of Science Without Borders over the whole four-year period the amount that the Brazilian Government are investing in bringing their students here will come close to £250 million. That is a huge commitment. Obviously they are sending them to other places too. You would feel a bit miffed, I suppose, if you were then told you are high risk.

**Baroness Manningham-Buller:** Could anybody explain to me what high risk means in this context?

**Professor Riordan:** Nope.

**Baroness Manningham-Buller:** We will have to ask the Home Office. I am sorry, but I just wondered if anybody understood.

**Q37 Earl of Selborne:** I wanted to come back to Professor Allison’s interesting insight from that document by your colleagues, which I look forward to reading, in which you observe that they perceive that present procedures for overseas students will, in the long term, deliver harm to universities. Of course, you as vice-chancellors are implementing business plans that were probably put in place by your predecessors. It takes a lot of long-term strategic planning to invest to keep up with STEM subjects and, indeed, other disciplines,

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and a large amount of capital by anyone's standards. To what extent is this perception affecting reality as you try to implement your long-term policies? I think Professor Allison has described moving on to a new campus on the Olympic Park, and we heard that Cardiff has again planned for a growth policy, which may not be so easily delivered as you intended. Has this perception had a reality check yet?

**Professor Allison:** Perhaps, Lord Selborne, I will give an answer in two parts. The first is that whatever the nature of the challenge around recruiting overseas students, our approach is that we will sort it out. The reason for that is twofold. First, they are really important for cultural mix and cultural diversity on the campus. It is of benefit to UK students to have them there. The other thing is that we very much say that our internationalisation strategy is about our students having the opportunity to study overseas, as much as it is about overseas students having the opportunity to come to the UK. After all, we want global citizens to graduate: people who will have the opportunity, for example, to work for Rolls-Royce, which is one of our most significant takers of graduates, whether it is at Derby or in Singapore, where it has a major operation, so there is an element of it where we remain bullish.

However, my Council approved a new university strategy in December. We are quite conservative—it comes back to what Professor Riordan said—about the notion of growth on the Loughborough campus, but we believe there are opportunities for us in London partly because, at taught postgraduate level, of the number of students who choose to study in global cities, whether it is in this country or somewhere else.

For Loughborough, this is an important point: we work really closely with industry in all our STEM subjects. In fact, we have over 250 different partners in some shape or form, from very large global companies to SMEs. The Olympic Park will allow us to connect with iCITY and with the high-tech small SME cluster that has developed around Old Street and the silicon circle in a way that will give us real opportunities.

I will give you one example of that, although it is not from one of the countries that we have been talking about so far. Last week, we signed an agreement with MIT (the REAP programme). The Chancellor at MIT made it very clear that it was doing that with us because of the opportunity it presented its students to spend some time studying on our campus—because of the reputation we have there for the student experience—and some time in a global city, and because of the nature of the mix of students who those MIT students will be interacting with while they are with us. Of course, Loughborough students will be over at MIT in the same sort of way. Again, there is a really interesting ecosystem there.

We are conservative in our figures around the business plan within our strategy, but we believe still that there are opportunities for us where we can exploit what is special about our university, my university, so that we can relocate that somewhere else in a different sort of environment but really make it work for us.

**Baroness Sharp of Guildford:** When you talk about the mix of students, does this include the international mix of students?

**Professor Allison:** Absolutely, yes. One of the things I am really proud of is that if you were to pay me a visit and I were to walk you across the campus, I could introduce you to students from over 100 different countries. Now, some of those are pretty small in number, and of

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course some are rather larger, but that cultural diversity, I genuinely believe, benefits the predominantly young people who are at the university in terms of the community that they form, where they sit and what they will be doing in the world post-graduation.

**Professor Rippon:** I would just like to echo the point about campus diversity. Another area we have been very interested in is that of engaging with South-East Asia, which resonates with developments with the Emerging Powers Fund et cetera. Vietnam in particular is a country that we are developing very close relationships with.

We have a specific university strategy to increase our student numbers. Currently, overseas students account for just over 20%. We are hoping to increase that to over 25%, and engagement with Vietnam and other countries is part of that. Certainly, we have had to revisit that target with respect to the decline in student numbers that has occurred since 2010. Although we cannot necessarily infer cause and effect, there is certainly a correlation. That is a key issue for us.

We are also developing that aspect with overseas contact. We have a big emphasis on our students spending at least a year on placement. We are hoping that by 2020, 30% of those placement opportunities will be overseas. We target very particularly the countries that send students to us and, if those are going to decline, that is going to affect our strategy in a particular way.

**Professor Riordan:** There are two issues that are sector-wide. One is that there are departments in universities whose student body is composed predominantly of overseas students. If that number drops too far, those departments might start becoming unviable, and they are in STEM areas. I do not think we are going to run out of business studies students. If you look at the area I mentioned earlier on, computing science, in 2010-11 there was a 4% drop, in 2011-12 a 25% drop, and in 2012-13 a 11% drop. That is also going to affect the future workforce that is available.

I come back to this because of the steepness of the drop in that subject area and because employers want software engineers; they want people with these skills in this country, and we are continually being told that there are not enough of them. There could be strategic, longer-term consequences both for universities' capacity to be able to put on that type of course and for the sheer numbers of graduates in those areas.

**Q38 Lord Wade of Chorlton:** Coming back to the point about perception, which is really interesting, it may not be just a question of perception of our Immigration Rules, but of Britain as a whole. I just wondered if you had a view on that because, clearly, Britain's position in the world is ever-changing and people's attitudes to us are very different. I first started at university in 1949, when Britain was the place to be and we had a lot of people from abroad. I went to Queen's University in Belfast, and the range of people I met was quite amazing—Persians, for example. I remember having a couple of good pals from Persia—it was called Persia in those days—but clearly our role is changing. Is it right that we just look at the Immigration Rules, or should we actually look at the way we are seen by people abroad and that we are now seen in a different light? Do you have a view on that?

**Professor Allison:** Yes, I do. I agree with you, I think. As one of the comments I read out said, it is "visas and banks and ...". Let me give you a couple of examples. I felt tremendously sorry for the vice-chancellor at Lancaster, not least because he had only been in post for two days, when there was that terrible tragedy and one of his students was killed

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in Manchester. You will recall that. That got a degree of global press coverage. That does not help, because it gives an impression. We can all think, I am sure, of examples of isolated incidents of something that can, largely through inappropriate reporting in the media, become the general perception.

It comes back to the complexity of the issue and which bits we can have most effect on—not just one bit here. Which of this basket of things, if focused on—universities, government, other actors in this system—would make the most difference by changing that threshold of perception?

**Professor Rippon:** I possibly disagree slightly. Britain is still seen as a great place to come to, and we work quite closely with the British Council, which, as you know, has an exhibition travelling around about what is great about Britain. When I am visiting overseas, I talk to students and go to recruitment fairs. A lot of students would like to come to Britain. I do not think it is the general perception that is the problem. It is when they come up against the hurdles, which they perceive as high and changing, that it is a problem for us.

**Professor Riordan:** I endorse that. UK higher education has an extremely high reputation internationally, and we can evidence that with metrics. You can see very strong growth in new entrants until 2010. You have 144,000 in 2008-09, 161,000 in 2009-10, 174,000 in 2010-11, and then it flattens off and starts falling. I do not believe that our reputation has been so catastrophically dragged through the mud internationally as a country since 2010 to cause that kind of effect. Again, we cannot prove the cause, but it does look a bit funny.

**Q39 Lord Peston:** I have two questions. One follows on from an earlier question from Lord Wade—not this one but the earlier one—in case I misunderstood it. He asked you whether, if you cannot get foreign students, you can top up with British students, and I thought your answer was no. Is that right? Is that what you said?

**Professor Rippon:** That is a slightly different question. The cap on student numbers is a separate issue and that is changing. We could have more UK students, but our big emphasis is on the diversity of the student community.

**Lord Peston:** I understand that bit, but that was not his question. His question was: if you cannot get the foreigners, can you have British? I am still not clear what the answer is.

**Professor Rippon:** You would probably have to change the nature of the courses, because some of the courses are particularly attractive to overseas students for particular reasons. The short answer is yes, but you would have to change the nature of the portfolio you were offering.

**Lord Peston:** Let us be specific. Give us an example of a course that the Indians are not going to now.

**Professor Rippon:** There are several: pharmaceutical sciences—

**Lord Peston:** So you could not admit more British students to pharmaceutical sciences.

**Professor Rippon:** We would have to change the nature of the course.

**Lord Peston:** If I may say so, that is a bit peculiar. If it is the same course, you cannot admit British students to it. That is what you are saying.

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**Professor Rippon:** The other thing is whether or not it is the kind of course students are attracted to and for what reasons. That would be an additional issue.

**Lord Peston:** I understand that. That leaves me with the comment that I am really glad I gave up being a professor many years ago, because in the days when I was a professor you just admitted the students you wanted to admit. But I gather I am living in the past. Those days have gone. Is that right?

**Professor Rippon:** To be brutally frank, finance is also an issue with respect to the importance of overseas students.

**Lord Peston:** Yes, well, you will, again, be happy to know that when I was a professor the word “finance” was never mentioned.

**Professor Riordan:** What has changed is that we have now moved to a mass education system. That used not to be the case, so there are far, far more students coming. Also, up until two years ago you could not have just said, in England, anyway, “Yes, we will just take more home students”, because the numbers were controlled and allocated. Now we are moving towards a system where there will very shortly be no controls on student numbers at all, pretty much. That has already been relaxed in England and, to a degree, in Wales, where we are. The whole game has changed enormously.

It could be possible to expand home numbers, but you have to take a view on the size, shape and type of university that you want to be and that you are. Very much as Bob was saying earlier, we want a diverse student community. It is good for our students. It is very hard to get our students to go abroad. We have a national strategy for trying to get UK students to spend at least some time abroad. If they will not do that, which quite a few of them will not and do not want to—we want to get more of them doing it—being in a much more diverse university community is hugely advantageous for them and to this country.

**Lord Peston:** Could I just follow up, Lord Allison—professor, I mean; you do not have a peerage yet—on what you said in that document? You did say you would let us have it.

**Professor Allison:** I would be delighted to do that. I will send a copy to the clerk.

**Lord Peston:** Part of what you were saying in terms of whether people would want to come to you was, “Do they feel at home there?”. That was the sort of point you were making. Indeed, it reminded me, again, of the olden days. People who were from families in this country who had no university experience would go to the open day and would ask me, “What is your advice?”. My advice was always, “Do you feel at home there?”. They would say, “But is that university not a better one?”. I would say, “Well, academically, it is regarded as such, but your child is going to spend three important years of their life there and feeling at home there is the vital thing”.

Now, do I take it that you are arguing—and this applies to the rest of you—that it is vital in our country for universities to make foreign students feel welcome, and the main part of that is feeling at home there? Would that be the philosophy that you are trying to get over to us?

**Professor Allison:** I think you are absolutely right. Lord Peston, could I just briefly return to your previous question? Then I will answer that one. The comment I was just going to add was that for all universities—coming to your point about whether you could take the home

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students to replace the overseas—there is a balance of quantity versus quality. It depends where you are on that spectrum. We could replace them all if we wanted, if we were just working on a principle that we do not work on, which is “stack ‘em high and teach ‘em cheap”.

To come back to the question you just asked, you are absolutely right. This is one of the things that we work really hard at. I must give the Loughborough Students’ Union credit for this. I say that I have a students’ union, but they are independent from the university. They have one sabbatical officer dedicated to looking after international students and helping them to integrate and feel part not just of the university but of the town and everything that goes on there.

It is not just the taught programmes. If I attend sport, which of course is one thing we are particularly proud of, or other student societies, all the international students, providing they are in zones that are culturally acceptable to them, have the opportunity to form that broader nature of a community and feel at home. At the end of the day, one of the things that we have to do—and I am very aware that I am in a very privileged position in terms of the university that I am at—is a little bit of combating national perception. There is a little bit before they get to us and then, once they are with us, it is the work that we do to help them feel that they are genuinely part of a community.

**Q40 Lord Willis of Knaresborough:** As someone who went to university with students from Mesopotamia, I can do a little bit better than Lord Wade. Indeed, in answer, one point you did not mention, Professor Allison, was that universities are significantly dependent on overseas students to balance their books. You cannot take UK students and balance your books in the same way. You perhaps can do at undergraduate level, but at postgraduate level there is a significant fee differential between what you are getting in terms of one for the other.

What I wanted to ask you really was this. This short report really has to be positive in what it can recommend to government and, indeed, what it can ask the university sector to do. What puzzles me is that your panel, and indeed the previous panel, with the exception of Daniel Stevens, the international student officer, is basically saying that the Immigration Rules per se are not the main cause here: that they are marginal. What is happening is to do with the interpretation, the perception, of those rules and everything else that goes with it.

I would like each of you to say what this Committee can recommend to government that would actually make a difference. Do not ask for something that is beyond the pale. What should we be doing to actually make sure that that is the case? When I look at the applications for tier 2 visas, which are quite separate if you have graduated here, I do not see that being advertised as a separate entity. It is linked in with tier 2 and quotas and the rest of it, but that is not the case. When I look at what is happening with PhD students being allowed to have a year of supervised looking-for-work after, I do not see that being advertised. What can we recommend that will make a big difference to resolve a problem, about which I think all of us are united in saying, “We have to get this right”?

**Professor Rippon:** I would have thought that the return of the post-study work visa would make a big difference to the practicalities of the existence of some of the courses, and to the perception. I think we heard previously that not all students would necessarily take up the

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post-study work visa, but the fact that it is there gives the impression that Britain is a country that wants to take you further.

**Lord Willis of Knaresborough:** Can I just pick you up on that? With the Rolls-Royces of this world that Professor Allison mentioned, there is no problem there. They have huge facilities to be able to process the tiered applications and to get those people in. The SMEs that clearly need these overseas students, to give them that link back into Bangladesh or Brazil or wherever, do not have that. I do not know of a single university that is processing those on behalf of SMEs, unless yours is.

**Professor Rippon:** We certainly have a link with our SMEs for our students.

**Lord Willis of Knaresborough:** That is different, is it not?

**Professor Rippon:** On some of the changes we made to our courses, we would not call them SMEs, but, for our optometry students, we had to work closely with Specsavers, Vision Express et cetera. Obviously they are not an SME, but we are aware of that.

It is also about the salary level as well. For our pharmacy students, or the optometry students in particular, the idea that you require a salary of, I think, £20,300—I am not quite sure where that came from—is completely unrealistic. No pre-reg student is going to be able to command a salary like that. That is quite a specific issue that we could look at.

**Professor Allison:** I would suggest three things. One is to look across the board where the Government have the opportunity to set or tweak regulatory frameworks to see whether there are things that can be done just to maintain appropriate levels of—I do not know what you would call it—control or oversight. If at all possible, we need to bring down barriers to just make things slightly easier to do in some instances. As I say, that is not just about the visa bit, it is wherever there is regulation.

The other one—some of this goes on—is to continue to work together in the sector and at all levels of government to give the right messages, but to back that up with an evidence base to demonstrate that perception and reality, where they are different, are indeed shown to be different.

The final one, particularly in relation to other countries where it is perceived that things have gone the other way, is to counterbalance that. One of the issues with the tier 2 visa was that as we made a decision that took it in one direction, Australia took it in the other. It is about how those things play out in the minds of people overseas and what we can do to influence that in a positive way.

**Professor Riordan:** When the Government or the Home Office are setting visa fees, it would be very helpful if that could be done in the context of what our rivals, our competitors, are doing. If a look was taken at what is happening in Australia and Canada, that would be good. The post-study work visa is a big issue, and it is something the Government can influence. It is not about saying that it has to be five years. You can go closer. We could look at how to make the UK more competitive without causing a problem in migration. I am sure that could be done. Just on a point of fact, as a sector we spend £68 million a year on processing visas as it is, so this is a major element of our expenditure.

**Q41 Baroness Hilton of Eggardon:** Just to pick up a specific point, one area where you might try to influence government policy is on the Immigration Bill that is currently going through



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Parliament. There are provisions there that I would have thought would adversely affect perception in other countries, specifically the suggestion that there should be a surcharge for health, which would affect students. It is not a very large sum, but the effect could be quite serious in the image that we present to students. There is also the suggestion that landlords should have to check the immigration status of students, which seems to me an impossible requirement. Are those areas in which you are lobbying government ferociously, and should we be doing something about that?

**Professor Riordan:** Yes, is that answer to that. On the health levy, I know that the basic level is £150, but if you are coming for a three-year programme you have to pay that all in advance. If you come to do a PhD with your family, you have to pay for the whole family. That can add up to a couple of thousand that you have to find before you start, so it does create a significant hurdle.

The issue of landlords is very serious. It is too much, I think, and we think, as a sector, to expect landlords to be doing this. Secondly, if you were a landlord, your natural reaction would be, as I think we have heard in previous evidence, to say, “Well, it is much easier not to bother with the international students”.

Even if we are able to accommodate them—and not all universities have enough of their own accommodation to do this—we will then feel under an obligation to house international students throughout their time at university in preference to home students, for one thing. You can see situations where it is going to look very discriminatory. If you are told that the reason you cannot get anywhere in the private sector very easily is because you are from overseas, that is not the kind of message we want to be sending out.

**Professor Rippon:** I agree with that. With respect to the landlord issue, it is sometimes the cost of university halls of residence et cetera that could obviously be partly within our control but may become discriminatory. We have an international student barometer survey and we come top with respect to the quality of our residences and bottom with respect to the cost. A lot of our international students look at private accommodation, which is quite expensive in Birmingham. If that was not available, due to all the kinds of issues that have been raised, and they had to stay in halls of residence, that would be an additional financial burden.

**Professor Allison:** I agree with everything that is being said, but could I make a further landlord comment that has been made by all the previous witnesses in front of you today? In any university, the largest landlord is the university, with the students that they have in their halls of residence. We could all set up a system. I do not have an answer, but the interesting question that we are thinking through is: could there be some link between the system that we have and landlords? The bit that concerns me is this. We have a group of landlords who work really closely with us. We set a standard, for example, to make sure that there is not going to be a boiler that has not been serviced and that will end up causing a tragedy due to carbon monoxide poisoning. Those are the landlords who I am quite sure will want to work with us on this issue.

The group that concerns me, and they exist in every city, are the unscrupulous landlords who are not interested in anything like that. Foreign students come to a country, and many of them have not been to that country before. They come into a system, or they are trying to find accommodation in a system, where they are away from home and they have all the

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vulnerabilities that we know go with that. My concern is that they are a group at risk because of that. What can we do to set up a system to make sure that that vulnerability does not put those students at risk?

I could imagine ways in which we could work as a sector with people to do it if there was a requirement of those other people to work with us in an appropriate way. I am concerned, as Colin has indicated, that the current draft legislation would lead, again, to a perception but none the less a sense of a system here that is not supportive and welcoming of these students, particularly if they are here for three years. The majority of our students come into our halls of residence in year one, but then go out and find private landlord-based accommodation in year two in many universities. We need to think through how we can potentially get the linkage to ease that and make it a more welcoming and easier process.

**Baroness Hilton of Eggardon:** You are making an assumption that the legislation is going to pass as it is. My question is what you are doing about persuading the Government not to have this provision in the Bill.

**Professor Allison:** You are absolutely right, and that is why I said “draft legislation”. I have spoken to my local MP, Nicky Morgan. She is very aware of it, and, of course, we have been petitioning the relevant government Ministers at BIS as well.

**The Chairman:** I would like to thank you very much indeed for your evidence this morning. It has been extremely valuable to us. Professor Allison has kindly agreed to send that survey into us, but if either of the other two witnesses wishes to add any evidence, that will become part of our published evidence. In due course, you will receive a transcript of this session for you to make minor editorial corrections to, if you so wish, and, of course, you will see our report in due course. Thank you very much indeed.

Professor Helen Atkinson CBE, FREng, University of Leicester, Engineering Employers' Federation (EEF) the manufacturers' organisation and Professor Sir Peter Gregson, Cranfield University – Oral evidence (QQ 53-63)

**Professor Helen Atkinson CBE, FREng, University of Leicester, Engineering Employers' Federation (EEF) the manufacturers' organisation and Professor Sir Peter Gregson, Cranfield University – Oral evidence (QQ 53-63)**

[Transcript to be found under Engineering Employers' Federation \(EEF\) the manufacturers' organisation](#)

Ian Bradley, The University of Manchester, Philip Lockett, London South Bank University and National Union of Students (NUS) – Oral evidence (QQ 16-31)

**Ian Bradley, The University of Manchester, Philip Lockett, London South Bank University and National Union of Students (NUS) – Oral evidence (QQ 16-31)**

[Transcript to be found under National Union of Students \(NUS\)](#)

## **British Council – Written evidence**

### **1 Summary**

1.1 The UK has historically been a leading destination for international students looking to undertake taught courses and research in STEM subjects but with increased competition from both established destination countries and new entrants, it is timely to consider the UK's position. The evidence suggests at a time when the pool of international students continues to grow, especially in India and South Asia, the UK's share of key markets is in decline. There are complex reasons for the fall in the numbers choosing to come to the UK to take STEM courses but the ease and cost of securing a visa and perceptions of the host country's attitudes to students are key factors when a student is considering whether to choose the UK or a competitor like Canada or the USA.

1.2 A significant fall in the numbers of international students coming to the UK will have implications for individual courses and the resources available to STEM departments. The impact beyond campuses could also be substantial - the UK's economic success owes much to our world beating research and development base in STEM subjects.

1.3 This paper explores these issues and sets out the particular role of the British Council in the promotion of the UK as a study destination and supporter of the UK's STEM departments.

### **2 The British Council**

2.1 The British Council creates international opportunities for the people of the UK and other countries and builds trust between them worldwide. We are on the ground in six continents and over 100 countries bringing international opportunity to life, every day. Each year we work with millions of people, connecting them with the UK, sharing our cultures and the UK's most attractive assets: English, the Arts, Education and our ways of living and organising society. We have 80 years' experience of doing this.

### **3 The British Council and International Higher Education**

3.1 The British Council supports the exchange and mobility of students, scholars and academics into and from the UK, and plays a leading role in promoting UK higher education institutions (HEIs) to international students. Through our international network in over 100 countries and digital resources like the Education UK web site we present the UK as an attractive destination to prospective students.

#### *Education UK*

3.2 The Education UK web site attracts 2.2 million unique visitors each year, making it the website of choice for international students and agents. It lists over 150,000 UK courses and 3,000 UK scholarships at 2,600 educational institutions. As well as the website, we also run global e-newsletters, and provide education marketing materials for use around the world.

This year, one of our areas of focus is to show audiences worldwide that the UK is a leader in research, creativity and innovation. For this, we are gathering facts and statistics which demonstrate the UK's strengths, and exciting stories which bring these statistics to life. These stories look at how UK universities and colleges are breaking new ground and making discoveries that are changing the world. You can see these stories in this area of the website: <http://www.educationuk.org/global/sub/discover-create-innovate/>

### *Education Exhibitions*

3.3 Education exhibitions are the number one international recruitment tool that the HE sector uses to recruit students and to raise brand awareness. The British Council runs over 120 education exhibitions in more than 50 countries annually, attracting over 250,000 visitors a year. The British Council draws on GREAT campaign collateral at these exhibitions to highlight the breadth of the UK offer to potential students. It works with almost all UK universities and a growing number of FE colleges and schools. The numbers of exhibitions are growing and the British Council is expanding into new markets. We support UK education institutions to realise their international ambitions, providing services for international student recruitment, market intelligence and the development of working relationships with institutions in countries.

### *The GREAT Campaign*

3.4 The GREAT campaign is making a major contribution to the promotion of the UK as a destination for tourism, study and as a place to do business. In 2014/15 The British Council will focus particularly on strengthening the UK's attractiveness as a destination for study in the high volume markets of China, India and the US.

3.5 There are particular challenges in India. There has been a well-documented decline in student numbers over the last two years. In 2010/11 there were 40,890 Indian students in the UK but by 2012/13 that number had reduced to around 23,000. At the same time there have been increases in the number of Indians choosing to study in Australia, Germany and Canada. The British Council, working closely with the British High Commission, is aiming to reverse this trend through a major campaign including PR, digital, outreach and scholarships. The campaign is focusing particularly on the benefits of a UK education for career advancement.

## **4 The British Council and Science and Innovation**

4.1 Scientific research is more international than ever before with collaborations between laboratories across continents critical to innovation. Frequently the UK's links are driven by the personal relationships built up by visiting students and researchers. The trust and networks built up with the UK by international students are a critically important resource for the country that should not be underestimated.

4.2 The British Council plays a pivotal role in supporting the development of major bilateral and research platforms such as UKIERI and BIRAX and recently launched the innovative tri-lateral 'Global Innovation Initiative' (US-UK-Emerging Power). It convenes and provides on

the ground support in country for initiatives such as the doctoral training centres launched recently in Indonesia (DIKTI).

4.3 The British Council plays a significant role in demonstrating the creativity and innovation of UK science to young people overseas, whether this is through STEM education initiatives, science communication activities, or science festivals and fairs. Examples include:

- Our science in schools programme in France, supported by the French Ministry of Education, which brings UK scientists into schools to deliver hands on workshops and demonstrations.
- Our presence at the Thailand Science and Technology Fair, which attracts 1.2 million people, many of whom are prospective students. For the past two years British Council has supported scientists from UK universities to exhibit their work in a hands-on and interactive way, to demonstrate the creativity and strength of UK science to the audience
- FameLab International, a global science communication competition, in partnership with Cheltenham Science Festival and national partners such as CERN. This is often televised and reaches an audience of millions, and acts to inspire and engage people in science ([www.famelab.org](http://www.famelab.org)).
- Cubed, our online webzine which highlights UK breakthroughs in science and technology (<http://www.britishcouncil.org/cubed>)

4.4 We also support early career researchers, including PhD students, through a number of activities:

- We manage the EuraxessUK website, on behalf of BIS, which provides information to international researchers wanting to come to the UK. This website also has a searchable funding database, so that researchers can find funding to come to the UK, and has information on visas ([www.euraxess.org.uk](http://www.euraxess.org.uk)).
- We deliver an early career researcher partnership programme which focuses on building research links and collaboration in science and innovation between the UK and the world: <http://www.britishcouncil.org/society/science/researcher-links>
- We also help to build the communication skills of international researchers through our Researcher Connect training.

## **5 Soft power**

5.1 The UK's higher education sector is one of our strongest soft power assets. The reputation of the UK's HEI, especially in STEM subjects, is a powerful attractor to potential students both in terms of the quality of the education on offer but also the cachet it brings to CVs. The UK benefits significantly from the fees and associated spend of students – BIS estimated that in 2011-12 the total value to the UK economy was £10.2bn in tuition fees and living expenses alone. However, although less obvious, it is important to also recognise that those who have studied in the UK are much more likely to be well disposed to the UK on their return home. Sometimes they become leaders in their chosen fields, perhaps even the leaders of their home nation like Bill Clinton and Manmohan Singh. A recent report by

ExEdUK found that 13% of non-British Nobel Prize winners have been educated in the UK or had held a position at a British university, 32 of the world's 177 central bankers had gone to UK universities, and 407 non-Britons listed in Who's Who had been educated in the UK, the vast majority as undergraduates. Research by the British Council has previously found that there is a significant trust dividend from the UK from people engaging in cultural relations activities such as studying in UK universities. This means that on their return home, international students are more likely to trust people from the UK, to want to visit the UK and to want to do business with UK companies.

The impression that international students are welcome from initial enquiry through to the experiences they have while studying are therefore a crucial part of the equation in stabilising STEM applications.

## **6 The British Council's position on student visas**

6.1 The British Council fully supports the government's declared intention to attract genuine students to the UK. We have been working in partnership with BIS, UKTI and the FCO and through the cross-government GREAT campaign to promote the UK as a destination of choice for international students.

6.2 The vast majority of international students coming to the UK return home at the end of their course or else after gaining an extra 6 – 18 months of professional experience. They are not long term migrants; they are temporary visitors, paying guests in the UK who bring significant benefits to the UK economy. We believe that students should be excluded from the net migration figures and that, subject to appropriate checks, institutions should be trusted to be the best judges of whether a student is genuine and eligible to come and study in the UK.

6.3 We support efforts to ensure that only genuine students are admitted to the UK. However, due care must be taken to ensure immigration measures do not discourage or prevent the students our HEIs need to thrive from coming to the UK. There is a risk that in seeking to reduce net migration that there will be an unintended impact on the recruitment of international students who make a significant contribution to the UK's Higher Education sector and broader economy. The two aspects of the visa regulations that have the potential to do the most damage to the UK's reputation, the economy and cost the most UK jobs are the restrictions to 'pathway' visas which enable the intensive study of English via a course in a further education or English language college in the UK prior to taking up a place on a higher education course, and the issue of post-study work visas. We would support a review of these policies.

6.4 The pace of change is also a problem. Students considering the UK as a destination can be confused and put off by the rapid changes in immigration processes and guidance with some left in doubt as to whether they can even complete their studies. A period of calm and stability in the visa system would be invaluable.

6.5 Too often, regardless of the efficacy and intention of Home Office measures themselves, the nature of the national political and media debate regarding immigration and visa policy,



and particularly the coverage it receives abroad, can have an adverse impact on attitudes towards the UK as a study destination, creating an impression the UK is unwelcoming to international students. Given the enormous long term economic, soft power and myriad other benefits international students bring to the UK, we believe that there should be a much greater awareness of the impact of the domestic debate of immigration policy on international perceptions of the UK as a study destination.

6.6 Restricting the flow of genuine students coming to the UK is not in the interests of the UK economy. Our university towns and cities also derive huge economic benefit from the additional spending and employment generated by these students. Our research base in our universities depends on the income from fees for taught postgraduate programmes and the skills and experience of international research students. A significant reduction in the numbers of international students coming to the UK to take STEM courses would severely impact the viability UK's world-leading institutes of science and engineering damaging UK industries and businesses.

## **7 The Committee's Questions**

### **The importance of international STEM students to the UK**

7.1 The UK higher education sector is one of the most internationalised in the world: 18% of our student-base is international, over 25% of faculty are non-EU, and more than 80% of UK institutions have international partnerships. BIS estimates that in 2011-12, overseas students studying at higher education institutions in the UK paid £3.9bn in tuition fees and £6.3bn in living expenses.

7.2 International STEM students are critical to the UK's research base, they are underpinning the viability of pioneering research programmes in engineering, medicine and science that are essential to the UK's success in the global economy. About 90 per cent of full-time postgraduate taught students in biotech and some engineering programmes are international. Any fall in the numbers of these students pose a threat to the UK's long-term research base both in terms of reduced income from fees but also from the loss of innovative thinking, intellectual challenge and experience of different methodologies these students bring to academic departments.

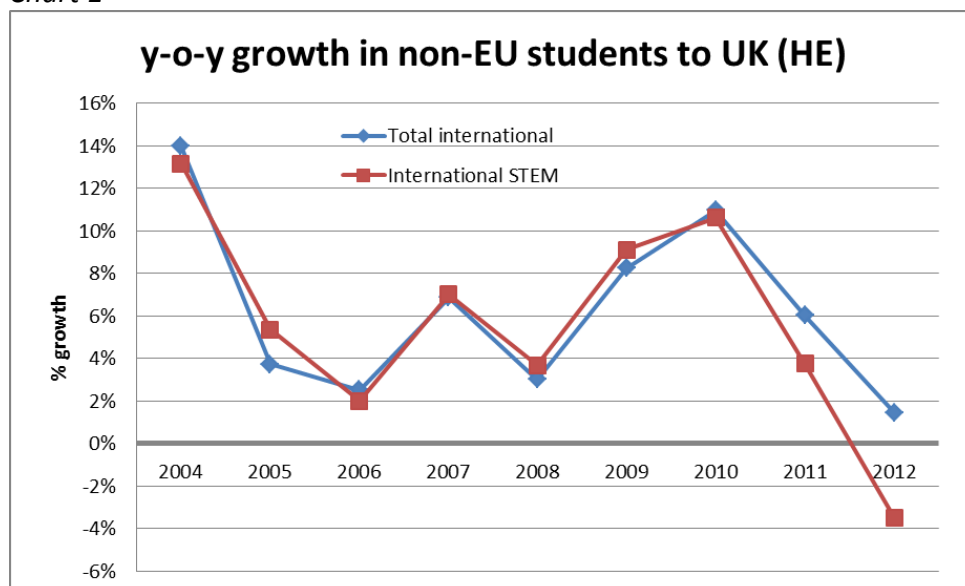
7.3 The UK currently leads the world in research productivity (number of citations relative to Gross Expenditure on Research and Development; source: UUK, 2011 'Driving Economic Growth'). The UK punches above its weight as a research nation. While the UK represents just 0.9% of global population, 3.2% of R&D expenditure, and 4.1% of researchers, it accounts for 9.5% of downloads, 11.6% of citations and 15.9% of the world's most highly-cited articles. The UK needs to remain innovative to be globally competitive and that requires drawing on global rather than just national resources.

**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?**

*How have the numbers of international STEM students in the UK changed since 2011*

7.4 Changes to visa policies for international students came into effect in April 2011. Non EU domiciled students enrolling in UK based STEM programmes in HE institutions declined 3.5% in 2011-12 compared to 2010-11. It is important to set this in context and consider trends in international student numbers to the UK up to this point and changes to non-EU student numbers enrolled on UK programmes in other subject areas. International (non-EU domiciled) student numbers to the UK have increased year on year since the 1990s. Since 2002, growth in international STEM students has tended to match growth in overall international student numbers. In 2011, these figures appeared to decouple (see chart 1). The change from 2010/11 to 2011/12 shows a positive growth of 1.5% in overall international student numbers, but a decline of -3.5% international STEM students. Early statistical releases show that international numbers to the UK declined for the first time in 2012-13 (a drop of 1%). We do not yet have a greater drop breakdown of these figures by subject area and so cannot confirm whether the numbers taking STEM subjects shows any variation from the general fall. However, on the basis of anecdotal evidence, our expectation is that STEM subjects will show a larger drop.

Chart 1



(Source: British Council analysis of HESA data)

7.5 The decline in STEM students has been experienced predominantly at the post graduate taught level of study, with all STEM subject areas showing a decline apart from mathematical sciences. Other levels of study (postgraduate research and undergraduate) increased in number from 2010/11 to 2011/12 (3.8% and 3.5% respectively).

*Where do STEM students come from, and how has this changed?*

7.6 Table 1 shows a decline in 2011-12 in STEM students to the UK from 8 of the top 20 sending countries. The largest decline (in absolute terms) was from India – in 2010/11 India was the largest sender of STEM students, but a decline of 27.4% (5,435 students) now puts India behind China.

7.7 For all 8 of the countries which experienced a decline in STEM students, this decline was greater than the decline in overall student numbers from that country – i.e. the drop in STEM student numbers was disproportionate to the overall change.

7.8 However, the picture is not uniform with 7 of the top 20 STEM countries had a growth in STEM numbers which was greater than the growth in overall student numbers.

*Table 1*

<b>Table 1: Top 20 sending countries for STEM students in 2011/12 and how these numbers have changed</b>									
	10/11 all subjects	11/12 all subjects	Overall change	10/11 STEM	11/12 STEM	Change in STEM	2010/11 STEM PGT	2011/12 STEM PGT	Change in PGT STEM
Total	313720	318270	1.5%	112575	108700	-3.4%	42075	35685	-15.2%
China	70035	81480	16.3%	17025	19125	12.3%	5190	6260	20.7%
India	40765	31470	-22.8%	19815	14380	-27.4%	13845	8710	-37.1%
Nigeria	18305	18405	0.5%	8315	8415	1.2%	4595	4220	-8.1%
Malaysia	14770	15505	5.0%	7550	7815	3.5%	760	755	-0.5%
Saudi Arabia	10840	10470	-3.4%	5430	5475	0.9%	1730	1255	-27.6%
United States	16745	17445	4.2%	3485	3760	7.9%	1040	1075	3.4%
Hong Kong (SAR)	10615	11490	8.2%	3540	3745	5.8%	405	360	-11.8%
Pakistan	10825	9450	-12.7%	4505	3700	-17.9%	2150	1535	-28.7%
Canada	6320	6555	3.7%	2105	2200	4.4%	590	605	2.7%
Iran	3830	3780	-1.3%	2275	2190	-3.7%	695	670	-3.4%
Singapore	4565	5405	18.4%	1855	2170	16.9%	255	260	2.4%
Thailand	6450	6765	4.9%	1745	1860	6.6%	550	595	8.4%
Sri Lanka	4305	3700	-14.1%	2275	1750	-23.1%	635	385	-39.8%
Libya	3020	2180	-27.8%	2025	1435	-29.1%	985	460	-53.5%
United Arab Emirates	3135	3215	2.6%	1310	1295	-1.1%	395	370	-6.4%
Kuwait	1840	1955	6.3%	1190	1285	8.2%	250	235	-5.6%
Brunei	2085	2295	10.1%	1190	1285	8.0%	180	175	-5.2%
Norway	3955	4510	14.0%	1040	1220	16.9%	190	205	6.8%
Bangladesh	4215	3945	-6.4%	1350	1135	-16.1%	560	360	-36.1%
Philippines	1825	1425	-21.9%	1465	1085	-26.0%	95	110	13.7%

Note that the countries in this table are the top 20 STEM sending non-EU countries in 2011-12

### **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?**

7.9 The choices made by prospective international students can be influenced in many ways and are based on a variety of factors. Looking at the numbers choosing the UK is a crude guide, for example the drop in the number of Indian students coming to the UK will reflect the depreciation of the Rupee on currency markets as well as the widely publicised tightening of the UK visa regime. However, by comparing international trends we can draw some correlations on the impact of visa changes on the UK's competitiveness in the STEM market.

7.10 Data from UNESCO Institute for statistics shows international STEM enrolments for many host countries up to 2010. The experience of the UK to that point was not isolated as increases were observed in all host countries except Hungary and Norway. By way of contrast, since 2011, alternative study destinations have not experienced the same decline in STEM student enrolments that the UK has seen.

### *Australia*

7.11 Overall international student enrolments in Australia suffered a decline from 2010 onwards. However, despite this drop, international post graduate research students in STEM subjects continued to rise to 2012 ([https://aei.gov.au/research/Research-Snapshots/Documents/STEM\\_2012.pdf](https://aei.gov.au/research/Research-Snapshots/Documents/STEM_2012.pdf))

7.12 Latest figures (up to December 2013) show that overall international enrolment numbers are increasing again, including increases in numbers from countries which are declining in number to the UK (India, Pakistan, Bangladesh, Sri Lanka, Philippines, Iran).  
*USA*

7.13 International enrolments to the USA continue to grow with the current figure standing at 819,644 (2012/13). Around 301,000 of these study STEM. STEM students have increased each year since 2004/05.

7.14 Looking at 2011/12 (for comparison with latest available UK figures), the number of Indian students choosing the USA did decline - by 3.5%. Even though over 100,000 Indian students were enrolled in US institutions, in absolute terms the decline was smaller than the decline to the UK. Around 36% of Indian students in the US are enrolled in engineering programmes.

### *China*

7.15 Data from China National Bureau of Statistics shows that new (domestic) enrolments in STEM in China have grown steadily year on year since 2008.

### **Which UK immigration policies are affecting international STEM students and what issues are they causing?**

#### *The right to work, costs and bureaucracy*

7.16 The British Council runs a survey of prospective international students – The Student Insight Survey.

Respondents to the survey in 2012 who stated an interest in studying STEM programme outside of their home country were asked a series of questions about their perceptions of different study destinations.

7.17 About 8% of respondents believed that the UK was ‘worse than last year (2011)’ with regard to their perceptions of the country being ‘A friendly and welcoming study destination’, 28% believed it to be ‘Better than last year’. About 10% believed the USA to be worse than last year and 21% better than last year. 86% of STEM students interested in studying in the UK agreed or strongly agreed that the UK has an energetic and creative youth culture and offers an innovative study experience, but 36% agreed or strongly agreed that it was difficult to apply for courses at UK institutions.

7.18 However, the perceptions of Australia and Canada contrast with attitudes towards the

UK. There has been a marked improvement in the image of these study destinations – only 0.5% had the view that Australia was now worse than last year, and 0.3% had a negative view of Canada with 34% holding the view that their perception of Canada as a friendly and welcoming study destination had improved since 2011.

7.19 The survey data shows that a major motivation for prospective students to seek an international education is to enhance their career prospects. Of 3,172 respondents who stated an interest in taking a STEM course outside their home country, 949 (30%) believed they would enhance their employability most through working whilst studying, and 861 (27%) believed they would enhance their employability most by working in their study country upon graduation.

7.20 Parents of prospective international students from China tell us that they are really keen for their children to be able to stay and gain work experience after their studies. Whilst it is not entirely impossible to stay on in the UK after graduation, there is no direct guarantee – which partially explains the popularity of rivals like Australia, Canada and the USA that offer more easily accessible options for post-study work.

7.21 The issue of changes in immigration to the UK, particularly the bond issue was debated heavily on Nigerian radio for many weeks. The underlying messages behind this were that UK was closing its doors. We subsequently saw a significant dip in the number of prospective students visiting Education UK fairs across the country. When we visited several other fairs organised by other agencies, UK exhibitors' stands had reduced numbers of visitors with prospective students heading straight for Canadian and US universities. The perception that it is now difficult to secure post study work visas after graduation makes Canada a more attractive destination to Nigerian students. Our offices in Nigeria have also observed that a number of visible new players are entering the local market offering cheaper and easier visa destinations - Ghana, Turkey and the Ukraine are all actively pursuing Nigerian students.

7.22 A recent study of prospective students in India reported that 'high cost' was the greatest deterrent to study overseas for most (followed by lack of scholarships, then difficulties getting a visa, and not being able to work). The perceived removal of the right to work also impacted negatively on prospective students from India. However, also important is the perception that there are now more opportunities for Indian students to advance their careers at home rather than in the UK.

7.23 International student numbers to Australia declined for 3 years from 2010 following a tightening of student visa requirements. However, when Australia subsequently streamlined their visa system, reduced the financial requirements on prospective students and offered post-study work visa options to graduates applications immediately showed a sharp upturn. Professionals involved in international recruitment in Australia have shared the view that a joined up system which provides opportunities for post-study work "is obviously crucial".

7.24 The USA has specific programmes in place to offer international STEM graduates the chance to stay in the country for an additional 17 months after graduation, offering graduates the opportunity to gain the work experience many consider vital to success when

they return home.

7.25 Canada offers work visas for international graduates and their spouse/common law partner, and highlight the fact that this will be viewed as a step to potential immigration to Canada. <http://www.cic.gc.ca/english/resources/publications/study.asp#other>

**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?**

7.26 Our global network, international work in higher education and research on the international higher education landscape, issues and trends provides a unique evidence base for sharing insights on challenges facing UK institutions looking to recruit STEM students in the global market. Our work monitoring perceptions of the UK can be particularly informative to HEIs and the four Governments of the UK.

7.27 We believe a more evidenced based approach to student visas should be adopted. More could be done to evaluate the impact of policy, preferably before further changes to the visa regime. There are valuable lessons to be learned from the experience of our international competitors, particularly other Anglophone countries. Detailed consideration of the experience of Australia would likely be especially informative to UK policy makers. We would also like to see a much better understanding of the impact the domestic debate in the UK has in our key international markets.

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

7.28 National policy decisions are rarely simple, they are a balancing act between often competing interests. The public are understandably concerned about the effects of immigration on the local services on which they rely, on the employment prospects of young people up and down the country and on social integration. The critical point is to strike the right balance that allows the UK's HE sector to continue to attract international students while protecting against abuses of the visa system.

7.29 Globally the number of internationally mobile students continues to grow and other major hosts of international students have observed increases in their international enrolment figures. New entrants to the international student market are offering attractive options for prospective international students, in recognition of the significant economic and soft power benefits they bring. Our research predicts that internationally mobile student numbers will continue to increase to 2020 and beyond (although at a slower rate than in the last decade).

7.30 Yet the UK's share of the international student community has shrunk. In some cases, like India, the fall in STEM students is in dramatic contrast with the experience of our international competitors. Although there are a number of factors impacting on this and the visa changes are only one part of the picture, it is true to say the changes are having a

significant impact on the UK HE sector's ability to compete and are restricting the growth of what could be a fast growing UK export.

**Do HE institutions and the government have effective mechanisms in place for communicating the rules arising from immigration policy to prospective international students?**

7.31 The British Council works closely with the UK Border Agency, the Department for Business, Innovation and Skills, the Home Office, UKCISA, HEI and other sponsors and partners to ensure that visa and entry arrangements are more user-friendly for international students and to make their stay in the UK a positive experience. Around the world, we work closely with UKVI on the ground to communicate the message that the UK is open for business to manage negative comments and perceptions of the UK. The British Council manages the 'Education is GREAT' strand of the GREAT campaign. This programme aims to deliver measurable economic benefits in terms of student recruitment, whilst also supporting the UK's long-term interests and enhancing UK influence within target markets. In the coming year the British Council will focus particularly on the high volume markets of China, India and the US.

7.32 Through our global network and online resources we provide prospective students with guidance on preparing their visa application, preparing for coming to the UK and settling in safely once they arrive. The Education UK website provides practical advice to prospective students, covering a host of issues like pre-departure briefings, visas, scholarships, accommodation, travel and other critical concerns. Advice such as our Entry Clearance and Immigration brochure (<http://www.britishcouncil.org/entry-clearance-and-immigration.pdf>) helps signpost prospective students through the visa system. The British Council supports UK education providers with their international marketing work, through market intelligence, direct marketing services, delivering Education UK exhibitions and offering consultancy. Our extensive network of international education agents and the training we provide for these agents also support the international marketing efforts of UK institutions.

7.33 For more detailed advice on visas, we direct visitors to the Education UK website and other portals to UKVI's visa services pages. Our anecdotal evidence is that the language used on these pages is not necessarily viewed as warm and welcoming by prospective students, especially those with English as a second language. Improving the user experience of the UKVI website for prospective students would be a small but useful step in countering perceptions that the UK is unwelcoming.

7.34 Of course more could be done, a 2012 British Council survey of education agents marketing the UK as a study destination found that the majority of agents considered it difficult to understand the UK's visa system and that they wanted more information. Although some HEIs are increasingly circumspect about the use of agents, their role remains important and the perception of frequent changes to the visa system adds a further level of complexity to their work in trying to sell UK higher education opportunities to potential STEM students.

**Are international STEM graduates finding it difficult to pursue employment in the UK after**

### **completing their studies at HEIs?**

7.35 Our anecdotal evidence is that some graduates are finding it difficult to pursue employment for the crucial 6 – 18 month period post study. For example, our teams in Nigeria and India have reported that prospective students consider the employment options available both in other study destinations but also at home are now better than those afforded by the UK and as a result are reconsidering the UK as a study destination.

7.36 The vast majority of graduates that want to work post-study only wish to do so for a short time to gain experience that they can take home with them. The work they do while in the UK and the long term links they forge are a significant contribution to the UK's research base and should be recognised as such. We would welcome further consideration of whether the current post-study provisions are an appropriate response in the face of that offered by our competitors.

### **Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses?**

7.37 In 2011/12, students from outside the EU outnumbered UK students enrolled full time on postgraduate STEM courses. Non-EU students constituted 48% of all full time students with UK students forming 40% and other EU students 12% of the student body. For engineering 65% of students were from outside the EU. In computer science the figure was 67% and even for maths courses the proportion of non EU students was 58%. The students taking some individual programmes in engineering and biotech for example are 90% international in origin. If the international students who are filling these programmes choose instead to study in Australia or Canada the continuing viability of some courses will of course be put under pressure, with those most dependent on international students the most vulnerable. A reduction in the numbers of international students taking taught courses in STEM will affect the diversity and plurality of the UK's academic offer, reducing the attractiveness of the sector and potentially creating a cycle of decline. Any reduction in the range of courses on offer also restricts the choices on offer to UK students with potential implications to the skills base for the UK economy in key industrial sectors.

7.38 However, arguably more important to the continuing economic success of the UK than the implications for individual courses is the reliance of UK HEIs on their postgraduate taught programmes to support their research programmes. The income from these courses are in many cases what keeps a STEM department as a whole viable, if that income falls significantly a department will simply not be able to sustain the same number of academic staff, research students and postdoctoral researchers. The UK's research and development base in these crucially important sectors will be undermined with far wider implications for the UK economy than the billions that international students already inject into the UK economy through fees and associated spend.

## **8 Conclusion**

8.1 The UK is a leading destination internationally for STEM students. Our universities and research institutes depend on the flow of income and ideas these students bring. Some programmes would simply not exist were it not for the international students that choose



the UK. Were the reduction in the numbers of STEM students the UK experienced last year to turn into a declining trend there would be serious ramifications for the UK's research and development base in crucial sectors of the national economy.

8.2 That the number of international students choosing the UK to take STEM courses has fallen when the pool of students has continued to grow and our competitors have experienced an upturn in applications suggests the UK has become a comparatively less attractive destination. The UK's world leading institutes and research centres should be showing the same strong growth in student numbers as our competitors with all the positive implications for the economic success of the country that entails. We should not be seeing signs of stagnation or even of decline. The numbers of international students is growing, and the area where we are seeing the most growth is in students from India and South Asia, precisely where we are experiencing the biggest drops. While issues like the depreciation in the value of the Rupee are significant, the reality and perceptions of policy on visas are also key factors influencing the decisions international students are making in deciding whether to pursue their STEM courses in the UK or to choose one of our competitors. The changes made to visa requirements, the pace of change and the nature of the national debate on immigration have all impacted on the UK's attractiveness as a destination. We believe useful parallels can and should be drawn with the approach of our competitors, both old and new. Competition for students is growing, especially for the most ambitious students and the market will only become more challenging for the UK as our competitors offer simpler, more attractive and cheaper visa choices for students. The Australian experience, including the quick recovery in student numbers following the refinements the Australian Government made to policy in the face of falling applications, is of particular relevance to the UK.

8.3 Through the GREAT campaign and resources like the Education UK website, and by working with partners like UKVI and UKTI and our IHEs, the British Council is working hard to promote the UK in our key overseas markets for STEM students. Countering the negative international press coverage of the London Metropolitan issues in India, Nigeria and other target countries is a real challenge but we have enjoyed some success in countries like China and have challenging targets for the Indian market. We will continue this important work to support the UK's HEIs. The UK's world-leading position in STEM is a critical asset both to the national economy and to the UK's soft power and the British Council will do all it can to ensure it continues to thrive.

*20 February 2014*

## British Council – Supplementary written evidence

Unfortunately few countries provide details of the subject of study of the international students they host. It is however possible to compile a summary table showing students from India and Pakistan choosing to study in Australia, USA, Germany and Canada over recent years. (Data for other countries can be gathered from UNESCO but this resource only has figures up to 2010/11).

Please note that the sample countries included are not necessarily the major hosts – it is more because they make their data available earlier than other countries (although as the numbers suggest US, Australia and Canada are major hosts of students from India). In fact, increasingly, students may be seeking other locations to study. For instance, The Ministry of Education (in India) reported the number of Indian students studying in China increased from 9,370 in 2011, to 10,237 in 2012.

<b>Sending country</b>	<b>Host country</b>					
<b><u>India</u></b>		<u>2008/09</u>	<u>2009/10</u>	<u>2010/11</u>	<u>2011/12</u>	<u>2012/13</u>
	UK	36105	40470	40890	31595	23780
	USA	103,260	104,897	103,895	100,270	96,754
	Australia	28017	21929	15391	12625	16732
	Canada	9,516	17,549	23,601	28,929	
	Germany	3,236	3,821	4,825	5,745	
<b><u>Pakistan</u></b>						
	UK	10190	10420	10865	9485	7830
	USA	5298	5222	5045	4600	4772
	Australia	2833	3111	3272	4084	5681
	Canada					
	Germany	1300		1614	1888	

The table shows that numbers (of Indian students) have increased to Canada, Germany and Australia (in latest year). Numbers to USA have dropped, but the Council of Graduate Schools reported an increase of 40% in new enrolments from Indian students from their member institutions for the academic year 2013/14.

([http://www.cgsnet.org/ckfinder/userfiles/files/Intl\\_III\\_2013\\_report\\_final.pdf](http://www.cgsnet.org/ckfinder/userfiles/files/Intl_III_2013_report_final.pdf)). For Pakistan there are more data gaps, and the absolute numbers are lower, but USA, Australia and Germany all recorded increases in enrolments from Pakistan. Possibly of relevance is this recent article showing how North America is hugely attractive to STEM students, particularly from India <http://wenr.wes.org/2014/03/international-student-mobility-trends-2014-the-upward-momentum-of-stem-fields/>

### The Australia Case

International student enrolments in Australia increased rapidly throughout the late 1990s and 2000s. From 2009 they began to drop sharply. It was recognised by many (including

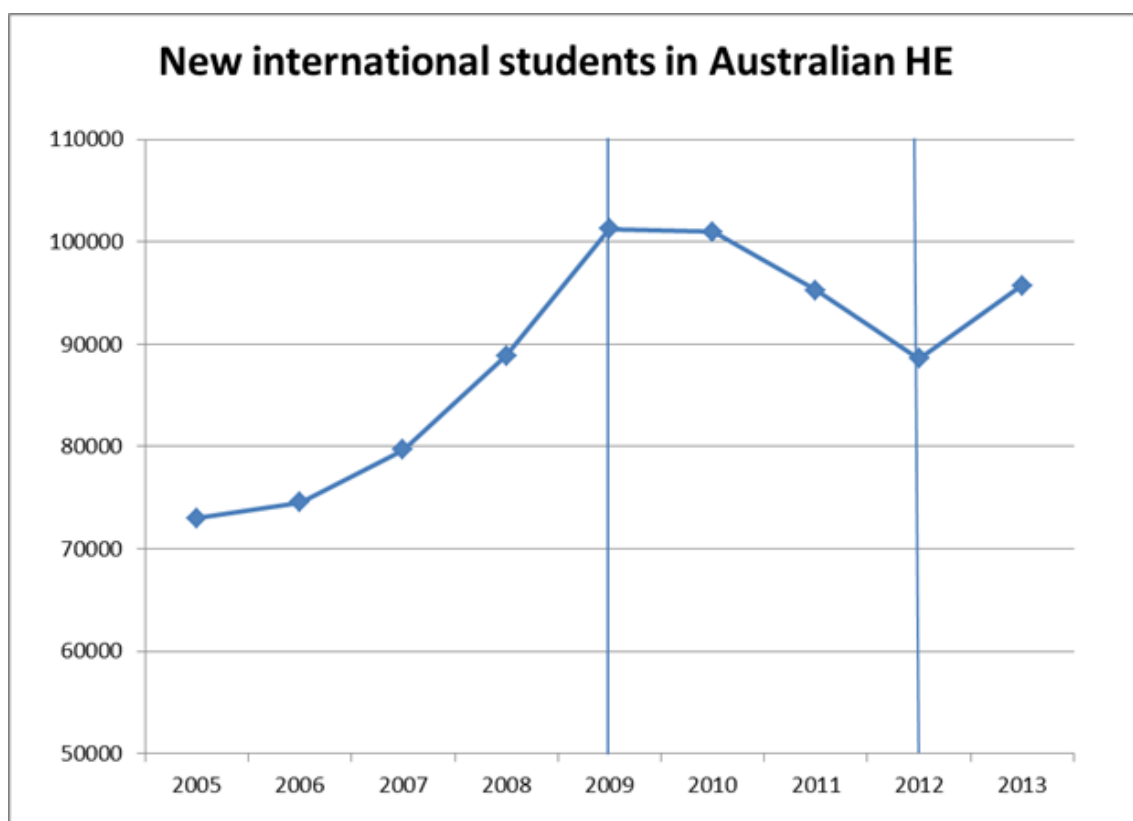
government) that “A range of factors have contributed to this including increased global competition, changes to Australia’s migration settings and a rising Aussie dollar. Many in the sector refer to these, and other factors, as creating “the perfect storm””

(<http://www.immi.gov.au/students/pdf/2011-knight-review.pdf>). In December 2010 the Hon Michael Knight was appointed to conduct a strategic review of the student visa programme, and he reported in Mid 2011 making 41 recommendations. The government supported these recommendations (which were welcomed by Australian universities) and started to implement them in 2012 and continued into 2013.

A useful summary of the key recommendations from the Knight Review can be found in this presentation – they include: providing a holistic approach, streamlining the visa process, treating qualifying students as low risk and recognising universities and other education providers as ‘high quality’, lessening the burden on the student, and providing students with an opportunity to gain practical work experience following their studies.

[https://www.icef.com/fileadmin/user\\_upload/files/seminars/anza2013/brand\\_australia\\_dia\\_c.pdf](https://www.icef.com/fileadmin/user_upload/files/seminars/anza2013/brand_australia_dia_c.pdf)

The attached chart shows international student commencements (new students) in Australian HE institutions from 2005 to 2013. Note that 2009 coincided with tightening of the visa processes, and 2012 coincided with streamlining of visa processes and re-introduction of post study work opportunities.



21 March 2014

## **British Medical Association – Written evidence**

### **About the BMA**

The British Medical Association (BMA) is an independent trade union and voluntary professional association, which represents doctors from all branches of medicine throughout the UK. It has a membership of over 153,000 doctors and medical students.

### **Introduction**

**1.** Much of the rhetoric about immigration has focused on the pressures that increased migration has placed on public services including the health service, housing and schools. The debate frequently fails to acknowledge the significant impact that highly skilled migrants such as doctors have played, and continue to play, in delivering and sustaining public services including the NHS and our universities.

**2.** The BMA believes:

- Debate on immigration policy must acknowledge the significant impact that highly skilled migrants, including doctors, have played, and continue to play, in delivering and sustaining public services including the NHS and our universities
- Any changes introduced to the immigration rules must provide medical students and doctors already committed to studying and training in the UK with a clear pathway through the training system
- There should be no retrospective implementation of visa rules that negatively impact on the lives of overseas medical students and doctors.

### **International Medical Student numbers**

**3.** There are approximately 3,000 non-EEA students studying clinical medicine in the UK. International (non-EEA) admissions to UK medical schools are subject via the Higher Education Funding Council (HEFCE) to a Department of Health cap of 7.5 per cent of total admissions. The purpose of this cap is to manage NHS workforce supply and demand and to prevent a situation where public funding of medical education is spent on preparing a large body of international students who may then leave the NHS and return fully trained to their countries of origin.

**4.** The BMA believes the cap is required and is set at the right level. We are supportive of international medical students coming to the UK as a vital part of the student intake contributing to universities and the local economy. We also believe that this needs to be balanced with also encouraging UK nationals to study clinical medicine and ensuring they are not prevented from progressing through medical training programmes. Graduate doctors, upon completion of an undergraduate medical degree (typically lasting five to six years), must complete the two-year UK Foundation Programme in order to achieve full General Medical Council (GMC) registration which is required to practise as a fully qualified doctor.

The Foundation Programme is designed to build on the knowledge and skills gained during undergraduate training.

5. For four years, the predicted number of graduates from UK medical schools has exceeded the number of available places on the UK Foundation Programme, causing the programme to be oversubscribed. In order to tackle this issue, the Government has previously made commitments to ensure that all graduates are offered a place on the Foundation Programme<sup>1</sup> and essentially provided additional funding to provide posts. With this problem set to continue, discussions are ongoing about a long term solution to this problem. The BMA therefore believes that the cap is essential to prevent exacerbating the problem even further.

6. The BMA also believes that career progression and immigration prospects for non-EEA medical students need to be clear and transparent from medical school admission through to completion of postgraduate training.

### **Impact of Tier 2 (General) Resident Labour Market Test and graduates of UK universities**

7. International medical students and doctors in training have a very different experience of UK undergraduate and postgraduate education than that of their counterparts in many other disciplines. The medical degree is the first stage in a lengthy period of training. As highlighted above, the immediate priority of the degree is to prepare the student for the Foundation Programme, which in turn provides the doctor in training with the practical experience needed to make an informed decision about specialisation.

8. Non-EEA students make up to 7.5% of those studying in programmes in clinical medicine at UK universities. Such students also make significant contributions to their local economies in the UK through living and accommodation expenses. Also during the two foundation training years, these graduates will have paid tax and made national insurance contributions. It should also be recognised that these students have made these commitments with the wholly reasonable expectation of embarking upon specialty training.

9. We are aware of anecdotal evidence suggesting that overseas graduates of UK universities are now facing barriers in progressing their training. These relate to the impact of the Resident Labour Market Test (RLMT) on UK graduates applying for specialty training both straight from the Foundation Programme and following completion of Core Training. Once they hold a Tier 2 visa, they can only apply for a specialty training programme in Round 1 if that programme is covered by their current visa sponsor, e.g. those sponsored by the West Midlands Deanery can apply for a programme in the West Midlands Deanery through Round 1 but they would not be able to apply for any other programme elsewhere in the UK unless it is through Round 2. We are very concerned about the rules having this impact and the possible effect this may have on the levels of overseas students coming to the UK to study. At this time, we have no statistical information to ascertain the extent of the issue which is concerning. Local Education and Training Boards<sup>2</sup> would probably be in the best position to

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<sup>1</sup> House of Commons, Hansard, 14 Jan 2013 : Column 621W

<sup>2</sup> Local Education and Training Boards (LETBs) are organisations authorised by Health Education England to be responsible for the training and education of NHS staff, both clinical and non-clinical, within their area.

collect this data. The BMA has consistently argued for immigration changes to be based on sound statistical evidence.

**10.** It costs in the region of £269,000 to train a newly qualified doctor in the UK and in addition to this the NHS makes a significant investment in terms of the salary paid to those who undertake the Foundation Programme<sup>3</sup>. There is a real risk that some of the most competent and talented UK-trained non-EEA doctors applying for specialty training will therefore be lost to the NHS. With no alternative immigration category open to them, this could mean that the NHS could potentially lose out on the cost of training and the benefit of the investment made annually in Foundation Programme salaries (£39 million<sup>4</sup> at present).

**11.** Graduates of UK universities have already been included in current medical workforce planning. The forecasts which have been made for the next few years cannot predict how many of these students will enter specialty training or indeed stay in the UK. For those that do, it is impossible to predict in *which* branch of practice they will work and in *which* UK location. These are key considerations as there is sizeable variation in recruitment across the spectrum of specialties; some will have surpluses, others will experience shortages. Workforce requirements at local, regional and national levels are also subject to similar degrees of variation. The BMA believes that the immigration rules should be responsive to the potential for medical workforce needs to vary according to medical specialty and/or geographical location and allow for appropriate adjustments to be made by those responsible for training and service delivery

**12.** Overseas students are a valued income stream for higher education institutions and help support teaching and research in other parts of the institutions. Prospective students from outside the EEA may well select other destinations to undertake their medical studies due to the limited opportunities now afforded to them in the UK beyond the Foundation Programme. If there was a resulting decline in non-EEA medical students in the UK below the set cap, there would be a sharply reduced income for individual medical schools through the loss fees paid by this group of students (between £25,000 and £35,000 per year for an individual student depending on the medical school).

*20 February 2014*

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<sup>3</sup> The Foundation Programme is a two-year postgraduate training programme, the first year of which is compulsory in order to gain full registration with the General Medical Council

<sup>4</sup> Figure based on the 2009 calculation that trainees are paid an average of £74,200 over the two-year Foundation Programme multiplied by 525, the number of non-EEA doctors entering the Foundation Programme each year.

## Brunel University – Written evidence

*Author: Professor Andrew George and Brunel University*

### **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. It is too early to tell the full impact of any immigration policy on STEM, but current evidence at Brunel shows the number of students studying STEM subjects is declining but this is true for both home and overseas students (see graphs in Appendix 1). Furthermore, data has revealed there are some demographic trends, most notably with the decline in applicants from India in 2012-13; Saudi Arabia being present in all three years until 2012-13 where it has disappeared from the top five altogether; and an increase in students from China in 2012-13.

STEM	2009-10	2010-11	2011-12	2012-13
1st	India	India	India	China
2nd	Saudi Arabia	Saudi Arabia	Nigeria	India
3rd	Nigeria	Nigeria	China	Iran
4th	China	China	Saudi Arabia	Malaysia
5th	Pakistan	Iran	Iran	Nigeria

**Table 1: Top five overseas domicile of Brunel Students 2009-10 to 2012-13**

### **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. We have analysed the number of applicants for STEM subjects over the last 3 years. Interestingly (see Tables 2 and 3) there has been no impact on our undergraduate applications at Brunel University. For postgraduates (see Tables 4 and 5) we are approximately 100 applications down, but the effect is minimal, around 5%.

Year	Number of applications
2011	1299
2012	1300
2013	1338

**Table 2: Undergraduate overseas STEM applications as at the beginning of August each year**

Year	Number of applications
2012	648
2013	727
2014	808

**Table 3: Undergraduate overseas STEM applications at the end of January for the past 3 years to allow comparison with current year**

Year	Number of applications
2011	2271
2012	2168
2013	2188

**Table 4: Postgraduate (PGT) overseas STEM applications as at the end of August each year**

Year	Number of applications
2012	565
2013	708
2014	802

**Table 5: Postgraduate overseas STEM applications at the end of January to allow comparison with current year**

3. Anecdotally, international students from all courses are being affected by the changes to the immigration policy because of the difficulties they now face if they need to take a period of abeyance for health-related or other personal reasons. Returning home is now very difficult, as is getting extensions to their visas. This means that we have students here struggling to keep up with their research and studies, etc who really should be taking time out. Although we have policies in place to manage these situations, we are very conscious that we cannot simply advise a student to take time out from their course as this could effectively end their studies here.
4. We also believe that some of the more recent changes, such as the increase of credibility interviews and an extension of TB testing in many countries could have an effect, but this will only be known in the coming year.

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

5. One of the immigration rules that most frequently prevents an international student studying with us is the 'academic progression' regulation. This affects students who have already studied in the UK at a certain academic level and wish to undertake another course at the same level. In certain circumstances, this is not permitted by the Home Office and we have to decline applications from otherwise qualified applicants. During the period 2012-13 to 2014-15 we have declined 109 applicants



(for all courses rather than just STEM programmes) on this basis. Analysis shows that 22% of the 109 applicants were STEM related.

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

6. The UK Council for International Student Affairs (UKCISA) has published a [briefing](#) on their particular concerns about the impact on international students, namely: the abolition of appeal rights and their replacement with a system of ‘administrative views’; the requirement for all landlords to undertake immigration checks; and the introduction of a Health Services Levy. We agree with them, that such provisions could make the UK less attractive and welcoming to international students, they would have a negative impact on legitimate international students coming to the UK; be difficult and/or costly to implement; and did not seem to be justified or well targeted if the aim was to reduce abuse within the system.

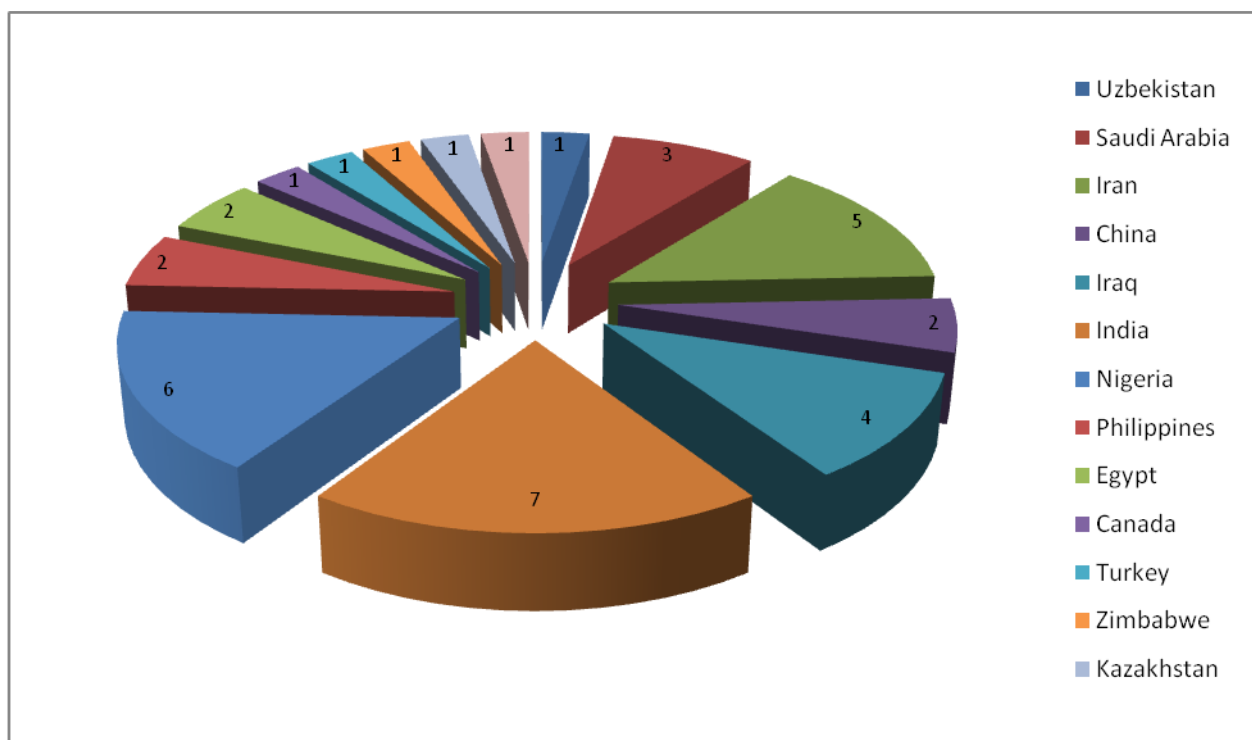
**How are the impacts of immigration policies on STEM students monitored, both by organisations and nationally? Is there sufficient collection and analysis of data to enable links between cause and effect to be understood?**

7. We do not monitor STEM student numbers specifically, and as far as we are aware there have been no internal surveys of the impact.

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

Yes they do, principally due to:

8. a) The image of the UK as being difficult to enter now, which has been off-putting in all countries but has had particularly bad publicity in India, from where a significant number of our STEM students came.
9. b) The increase number of visa rejections in key markets, which were also common STEM student markets, see graph 1 for evidence. Even though these numbers may seem small, the impact of word of mouth and a negative perception of the UK system would have a wider impact.
10. c) The loss of the Post Study Work visa route. The opportunity to stay on in the UK to gain work experience post study was extremely attractive, and with similar routes now available in alternative markets (Canada, Australia), STEM students are looking elsewhere for study and work options.



**Graph 1: Visualisation showing the number of international STEM student visa refusals at Brunel (Dec 2012 to Dec 2013)**

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

11. With regard to Brunel University we take good care to make sure we communicate effectively. We have mechanisms in place to communicate the rules arising from immigration policy to prospective international students in terms of the information we publish on our website, in correspondence we send to students once they have applied and the information we give to prospective applicants by our immigration team.

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

12. According to our DLHE (2011/12) records, 56.9% of STEM, PGT, overseas respondents were in 'work'; and 2.8% fell into the category 'combination of work and study'. Of those in employment, 86% were at graduate level. (It must be noted however, that although students were contacted several times, response rates were very low - for STEM cohorts only 12.5%). Furthermore, the number of unemployed leavers was very high - 29.2% across the whole STEM group (higher and lower in individual subjects) and colleagues at other higher Education Institutions indicated they experienced similar figures. We have talented and skilled students graduating from Brunel that the UK would like to employ here but cannot because of the visa regulations.

13. We believe the changes to the visa and permission to study would have an impact for future DLHE returns but at the time of writing this response, results from the 2012-13 DLHE were not available.

**Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

14. Falling overseas numbers could make critical courses/strategically important courses less viable for home/EU students. 30-40% of our students on STEM PGT courses are from overseas. So our postgraduate provision for STEM is critically dependant on overseas students. For example in 2013/14, for the course 'International Systems Management ' 30% of the students are Home/EU and 70% are overseas students; these courses could not run without overseas students.

**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?**

15. As an internationally recognised University we set targets for overseas student recruitment and over the coming years we are looking to increase our overseas student population. For 2012/13 the fee income from overseas students was ~17% of total University income with our overseas students accounting for 21% of our total student population. The STEM overseas students account for ~5% of the total University income and 8% our total student population.
16. Our current business model does rely on overseas students. However, although they are an important component, especially as the presence of overseas students can keep courses viable (for example in critical subjects where it is difficult to get home students), and the fact that they are a vital part of our funding mechanism, it is important to highlight that courses do need to contain home students too.
17. Our current business model relies on a number of income streams, and the fee income from overseas students is one of those vital streams. However, more importantly, overseas students are a critical part of the strategy of the University. Our home students benefit from being educated in a diverse, international environment as it provides them with experience of working across and with different cultures. We also have a mission tackle global issues and challenges, and our international graduates are a key way in which we will make a positive impact on the world.

*20 February 2014*

## Appendix 1 – Population Trends: Student's studying STEM subjects at Brunel University 2009 to 2013

The House of Lords Science and Technology Select Committee is conducting a short inquiry into the effect on international science, technology, engineering and mathematics (STEM) students of immigration policy. In accordance with this request, we have looked at Brunel's student population, how it has changed, any significant shifts in students studying stems and a look at which countries the majority of our overseas students come from. In particular we will consider the numbers and demographics of international stem students at Brunel University.

### *The Population*

The student population has declined since 2009-10 (but not in a steady state). This is partly influenced by the change in fee regime which occurred in 2012-13 leading to a decline in student numbers.

Fig 1. Student Population 2009-10 to 2012-13

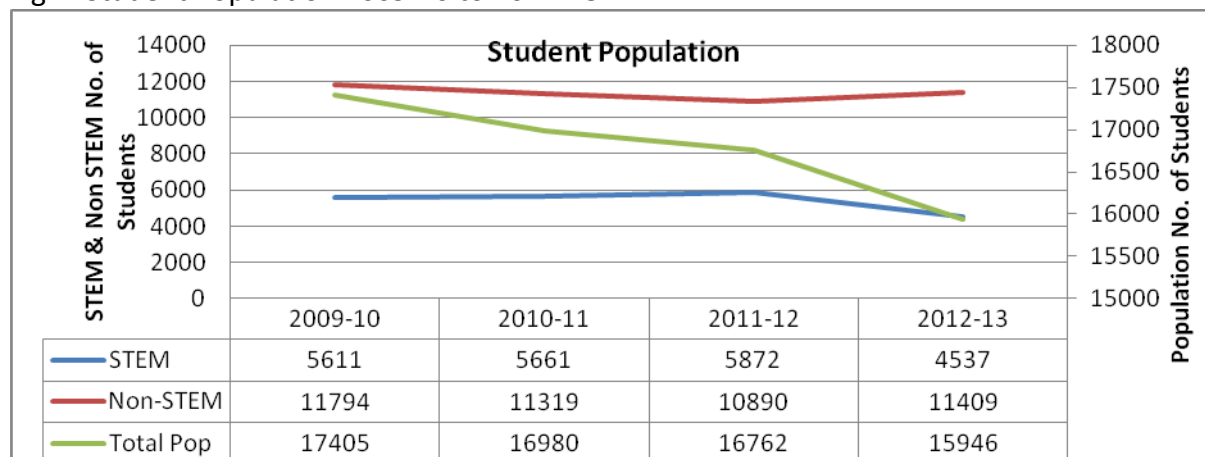


Fig 1 illustrates that the total student population declined, while students studying STEMs remained stable until 2012-13.

Does the overseas population reflect the general population trend?

Fig 2. Overseas Student Population 2009-10 to 2012-13

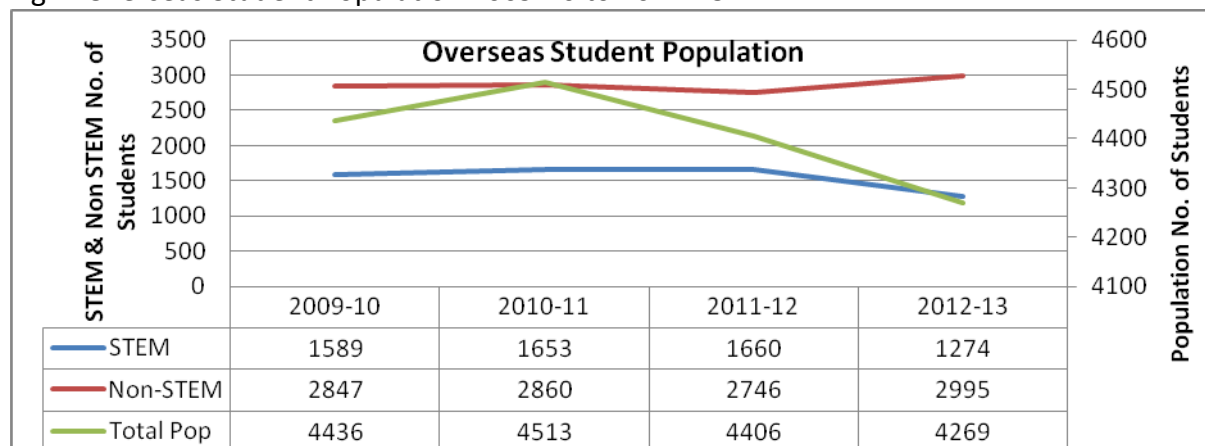


Fig 2 shows that the overseas students studying STEM subjects follow a similar trend to all students studying STEM.

Therefore although the number of overseas students studying STEM subjects has declined since 2009-10, so has the number of students studying STEMS in general has declined (at Brunel University), so it is difficult to argue that the reason for the decline is due to immigration policy rather than just a reflection of a general trend.

It this general pattern of decline still prevalent when considering different levels of study. At Brunel the majority of overseas students are studying at postgraduate level.

Fig 3. Student Postgraduate Population 2009-10 to 2012-13

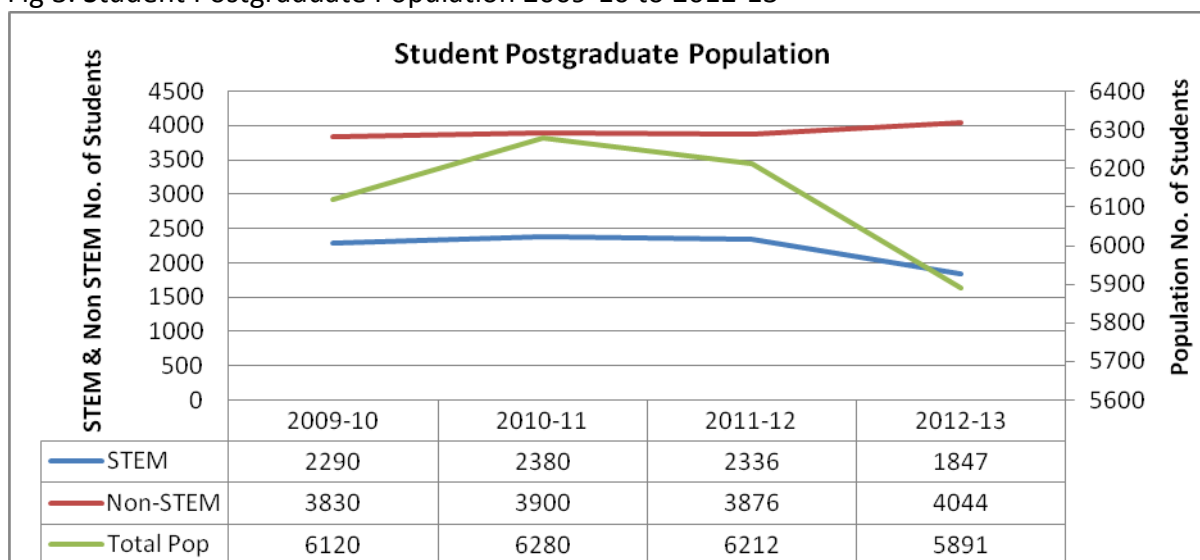


Fig 3 shows that postgraduate students also decline, although the decline in the total postgraduate population started in 2011-12, while the decline in postgraduate students studying STEMS did not occur until 2012-13. Is this trend reflected in overseas students?

Fig 4. Overseas Student Postgraduate Population 2009-10 to 2012-13

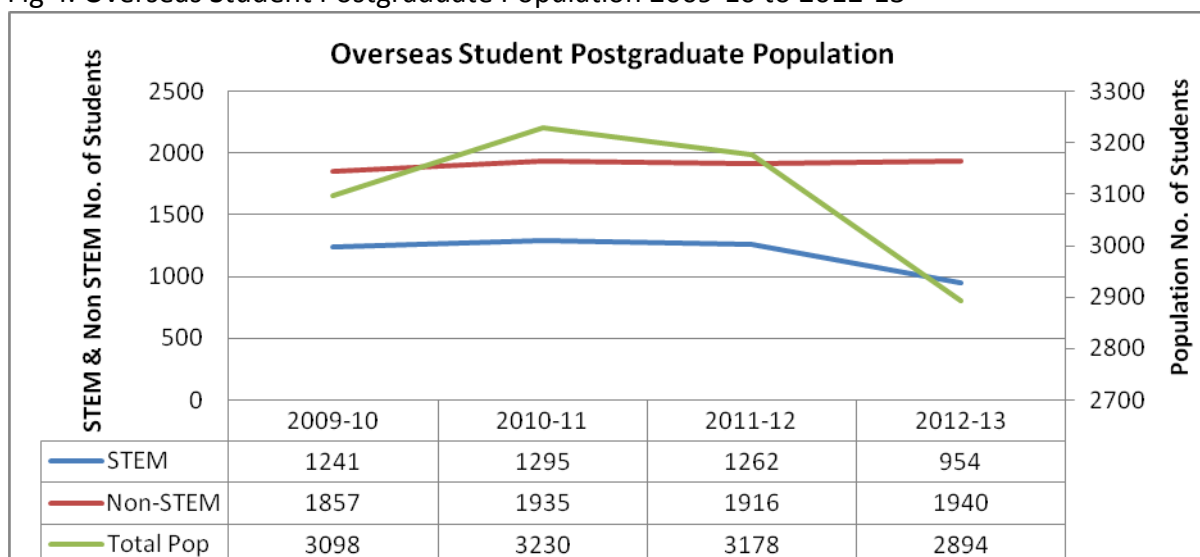


Fig 4 shows that the overseas postgraduate students follow a similar trend to the general population with a decline in overseas postgraduate students studying STEMS occurring in 2012-13.

Again the decline in overseas students studying STEMS appears to mirror the general student trend.

Finally we considered the most popular countries where overseas students came from and how this may have changed over time.

Fig 5. Top 5 Overseas Domicile of Brunel Students 2009-10 to 2012-13

STEM	2009-10	2010-11	2011-12	2012-13
1st	India	India	India	China
2nd	Saudi Arabia	Saudi Arabia	Nigeria	India
3rd	Nigeria	Nigeria	China	Iran
4th	China	China	Saudi Arabia	Malaysia
5th	Pakistan	Iran	Iran	Nigeria

Non STEM	2009-10	2010-11	2011-12	2012-13
1st	China	China	China	China
2nd	India	India	India	Nigeria
3rd	Pakistan	Saudi Arabia	Saudi Arabia	Thailand
4th	Saudi Arabia	Pakistan	Pakistan	India
5th	Thailand	Nigeria	Thailand	Pakistan

Total	2009-10	2010-11	2011-12	2012-13
1st	China	China	China	China
2nd	India	India	India	Nigeria
3rd	Saudi Arabia	Saudi Arabia	Nigeria	India
4th	Pakistan	Nigeria	Saudi Arabia	Thailand
5th	Nigeria	Pakistan	Pakistan	Pakistan

This table does not show much change with regard to where students are from. India has seen a slight decline in all three strands, while Saudi Arabia being present in all three tables until 2012-13 where it has disappeared from the top altogether.

In conclusion it is probably too early to tell the full impact of any immigration policy on STEMS, but current evidence at Brunel shows that the number of students studying STEM subjects is declining but this is true for both home and overseas students.

## Campaign for Science and Engineering (CaSE) – Written evidence

1. The Campaign for Science & Engineering (CaSE) is a membership organisation aiming to improve the scientific and engineering health of the UK. CaSE works to ensure that science and engineering are high on the political and media agenda, and that the UK has world-leading research and education, skilled and responsible scientists and engineers, and successful innovative business. It is funded by around 750 individual members and 100 organisations including industries, universities, learned and professional organisations, and research charities.
2. The mobile student population is growing. A recent British Council report projects that the mobile student market globally is set to grow from 3.04 million in 2011 to 3.85 million in 2024 and that the UK could attract an extra 126,000 international students over the next decade.<sup>5</sup>
3. As well as adding to academic and cultural life, international students bring economic benefits to the UK. A recent (July 2013) report by the Department for Business, Innovation & Skills (BIS) estimated that the 435,235 international higher education students in the UK (in 2011-12) contributed £10.2bn to the UK economy, via tuition fees (£3.9bn) and living expenses (£6.3bn)<sup>6</sup>.
4. The Government wants to ‘win the race to the top’, as the Chancellor reiterated in his New Year speech<sup>7</sup>, backing his ‘personal priority’ of science to renew our high-tech economy and generate a ‘job-rich recovery for all’<sup>8</sup>. The future of the UK’s international competitiveness is not low-cost labour, but is high-skilled, high-value jobs in innovative world-leading sectors.
5. The UK is a world-leading nation in science and engineering and can play to that strength, however, these are international endeavours and so to be a world-leading hub that attracts research-intensive companies, academics, skilled workers and students, we must have a migration policy that actively attracts skilled workers and students to the UK.
6. There are numerous reports that state that we are seriously short of people with science, technology, engineering and maths (STEM) skills in the UK work force to meet demand. Engineering UK’s 2013 report, *The State of Engineering*<sup>9</sup>, claims that we need to double the number of graduates and apprentices in the discipline by 2020 to meet demand. Voicing the concerns of industry, the CBI’s Education and Skills Survey<sup>10</sup> shows that 39 per cent of firms “are struggling to recruit workers with the advanced, technical STEM skills they need”, with 41 per cent saying that shortages will persist for the next three years. The Social Market Foundation calculates that there is an annual shortfall in domestic supply of around 40,000 STEM graduates<sup>11</sup>.
7. The UK government’s ‘Shortage Occupation List’ for visa applications lists demand for 26 occupations that require STEM-skilled people – three quarters of the total. This list

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<sup>5</sup> The Future of the World’s Mobile Students to 2024, British Council, 2013

<sup>6</sup> International Education: Global growth and prosperity, BIS, 2013

<sup>7</sup> <https://www.gov.uk/government/speeches/new-year-economy-speech-by-the-chancellor-of-the-exchequer>

<sup>8</sup> <https://www.gov.uk/government/speeches/chancellor-george-osbornes-autumn-statement-2013-speech>

<sup>9</sup> Engineering UK ‘The State of Engineering’, 2013

<sup>10</sup> The Confederation of British Industries Education and Skills Survey, 2013

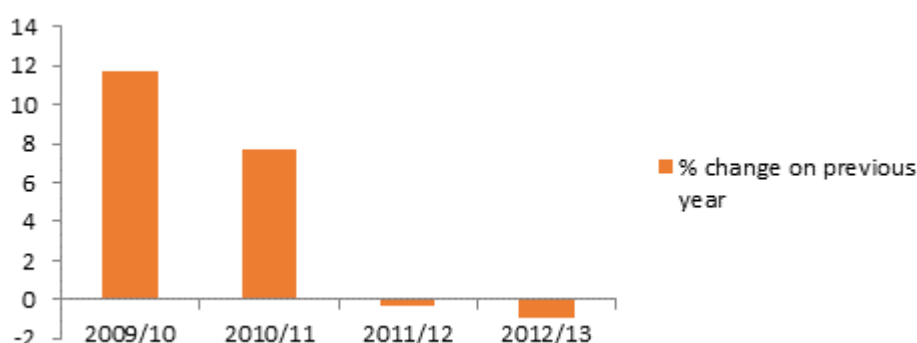
<sup>11</sup> The Social Market Foundation, *In the balance: the STEM human capital crunch*, 2013

shows that the UK urgently needs to recruit from overseas: engineers in the oil and gas industry, aerospace, nuclear waste disposal, railway signalling and automotive industries; hospital doctors and nurses in a range of specialties; and, crucially, secondary school teachers in science and maths.

**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?**

8. The Government's international education strategy<sup>12</sup> seems to recognise the need for, and benefits of, increasing international student migration. It states that the Government aim to grow the number of international students in UK universities by up to 20 per cent over the next four years – around an extra 90,000 students.
9. However, despite actively pursuing an increase in international students in some parts of Government, the number of international students from outside the EU (non-EU students) choosing to study in the UK has dropped for the first time. Since 2010 the trend of increasing international student enrolments has been halted. Instead, as shown in Figure 1, in the last two years there has been a fall in enrolments.

Figure 1 – Percentage change in first year non-EU student enrolments across all courses and levels of study (Source: HESA)



10. As discussed above the UK has particular need for skilled STEM workers and even the current number of graduates from UK universities is insufficient to meet industry demand. In 2011-12 a third (32%) of Engineering and Technology students were international students<sup>13</sup>. This is the second highest proportion of international students in any subject area, behind Business and Administration. Computer Science and Mathematical Sciences also have an above average intake of international students<sup>14</sup>. Significant drops to student numbers, and indeed any interruption to the growth of international student numbers is likely to have a strong impact on the UK's ability to meet demand for engineers and other STEM skilled graduates.
11. 1 in 5 (18%) of migrants issued student visas in 2006 appear to have legally remained in the immigration system or settled in the UK after 5 years. After 5 years 17% had some form of valid leave to remain and 1% had been granted permission to stay permanently (settlement). This is a reduction from 1 in 4 (25%) of migrants issued student visas in 2004<sup>15</sup>. This shows that the majority of students do not stay in the

<sup>12</sup> <https://www.gov.uk/government/news/new-push-to-grow-uks-175-billion-education-exports-industry>

<sup>13</sup> UKCISA analysis, using HESA data from 2011-12, 2013

<sup>14</sup> [Data.gov.uk](http://Data.gov.uk), HESA 2008/9 (used as later data were not accessible)

<sup>15</sup> Home Office, [Migrant Journey Third Report](#).



UK in the long-term, even prior to the 2010 reforms. However as discussed previously, it is in the interests of the UK to retain individuals with STEM skills. These figures relate to students who were granted visas prior to the closure of the post-study work route. The effect of the removal of this route on the number and proportion of skilled STEM graduates who stay and work should be monitored.

**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?**

12. In particular, the number of Indian students starting at UK universities is down by 26% on last year and the number of Pakistani students down by 19%. This is particularly concerning as India has historically been one of the non-EU countries sending the most students to the UK. This suggests that the stronger messaging and policy changes linked to the government policy of cutting net migration from the 2010 level of 250,000 a year to below 100,000 a year are having a greater impact than the measures suggested in the international education strategy.
13. Looking at the International Passenger Survey data from the Office of National Statistics from 2013 show that there was a 5% (-9,750) fall in study visas issued (excluding student visitors) in the year ending June 2013 (204,469) compared with the previous 12 months; in the calendar year 2012 study-related admissions fell 21% (to 211,000) compared with 2011 and over the same period estimates of non-EU long-term immigration for study fell by 23% to 139,000.<sup>16</sup>
14. The 9,750 (-5%) fall in study visas issued included notable falls for Pakistani (-8,457 or -54%) and Indian (-7,927 or -35%) nationals. Although there has been year on year increases for Chinese students, the increases are not in proportion to the total growth in Chinese student mobility. The UK has lost its market share of Chinese students. In 2004 nearly as many Chinese students came to the UK as to the US. Now, the nearly three times as many Chinese students choose to study in the US compared to the UK and Australia has overtaken the UK as their second destination of choice<sup>17</sup>.
15. The fact that the drop in international student numbers coincides with the year in which UK government immigration policy was changed and that the global picture is one of increasing numbers of international students suggests that the immigration rules are affecting the choices of prospective international students. In particular as mentioned above, there have been dramatic changes in demand from India where UK visa changes were widely publicised in their national press<sup>18</sup>.

**What impact might the provisions in the immigration Bill currently before Parliament have on international STEM students?**

16. CaSE supports the points raised in the Universities UK Parliamentary briefing<sup>19</sup> from the 4<sup>th</sup> February 2014 which raises concerns around clauses 11 (appeals), 15 (residential tenancies) and 33 (NHS charges).

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<sup>16</sup> [Immigration statistics April-June 2013](#), Gov.uk

<sup>17</sup> Figure in [‘Paying its way’](#) using HESA, IIE and UNESCO data, The Economist, 9<sup>th</sup> Nov 2013

<sup>18</sup> Indian Express, for example had [5 negative stories on UK immigration within 5 months](#) of changes announced in June 2010.

<sup>19</sup> [Parliamentary briefing, Immigration Bill: Lord’s Second Reading](#), 4<sup>th</sup> February 2014, Universities UK

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

17. UK competitors are actively trying to increase their share of the international student market and our main competitors offer a more generous and flexible post study work period - United States, Canada, France, Germany and Ireland all offer 12 months and beyond.
18. Importantly the messaging coming from these countries is one of welcome and championing of the value of international students. In contrast, determined and highly publicised anti-immigration messages coming from the UK Government and statements of increasing anti-immigrant sentiment continually published in the media are not compatible with the aim of communicating that 'Britain is open for business'.
19. CaSE recently hosted a roundtable event with the Home Office attended by 40 CaSE members and partners including national academies, universities, learned societies and industry. There was widespread concern that the business and university sector's efforts to attract overseas students are being hampered by the Government's messaging on reducing net migration. Specific concerns about negative perceptions abroad included:
  - Central Student Agencies are now advising international students to apply to universities elsewhere, as the UK visa system is too complex
  - Cancellation of the Post-Study Work Scheme
  - Problems over applications for students studying at private HE Institutions
  - Delays for processing visas, particularly with the Academic Technology Approval Scheme (ATAS)
  - Negative perception of the UK visa system, which is seen as complicated, lengthy, and bureaucratic
20. Universities present at the roundtable stated that they are making efforts to draw out positives but this is hard to achieve when dealing with negative perceptions from abroad. If this is not rectified international students will look to study elsewhere. Universities need to improve their marketing strategy to international students, but there is also an active role to be played by Government. Universities shouldn't have to market against a negative perception of the UK visa system. There was a call for the Home Office to provide positive marketing material to help with this effort.
21. Participants at the roundtable raised the need for the Home Office to be more publicly welcoming of skilled migration. The Home Office responded that they do talk of the importance of skilled migration. However, from our monitoring of public messages from the Home Office this isn't the case. Much of the messaging is about fraud which accounts for a small proportion of total cases. CaSE is calling for more balanced and consistent public messaging from the Home Office on welcoming skilled migrants.

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

22. Higher education institution representatives at the CaSE roundtable with the Home Office raised concerns about the ability of universities to remain up to date with the latest changes to immigration policy, and therefore to communicate the rules to

prospective international students. There is need for improved communication between policy and operational levels in the Home Office. It was also raised that a greater administrative burden is being put on universities at the same time as funding cuts. The Home office responded that, due to the returns, despite increased administrative costs it was still in university's interests.

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

23. CaSE and others in the sector have previously highlighted potential risks to the sector from the government's immigration reforms. As a result, the Government has made a number of welcome concessions to the science and engineering sector since May 2010. These concessions include:

- Scientists and engineers are now given priority through the Tier 2 visa system in the case of the immigration cap being reached, ahead of virtually every other job in the UK labour market.
- Scientists and engineers are now exempt from the £35k earnings threshold, which prevents workers in other sectors from seeking permanent residency in the UK.
- The Tier 4 Doctorate Extension Scheme (DES) has been created as a replacement for the Post-Study Work Visa and provides PhD students with an additional 12 months to look for and start work in the UK.
- Scientists have now been removed from the Resident Labour Market Test (RLMT), meaning that exceptional scientists from outside the EU can be employed ahead of a UK-resident and without having to advertise in Jobs Centre Plus, as the RLMT requires for other job types.

24. Considering the significant public investment in STEM graduates and the large and growing need for STEM skilled workers, it would be welcome if the Doctorate Extension Scheme in the UK could also cover Masters courses, and STEM Masters in particular. This would be a welcome incentive, making the UK an attractive place to choose to come and study, particularly considering the widely publicised removal of the post-study work visa route. It would also afford those on a Masters course the time to complete their course and look for suitable employment with enough time to apply for a new visa. With around three-quarters of the Shortage Occupation List made up of STEM skilled workers it would be cost effective and most efficient if we were able to provide every opportunity for STEM skilled graduates trained in the UK to feel welcome and find suitable employment.

*Submission was written by Naomi Weir, CaSE Assistant Director, on behalf of CaSE.*

*19 February 2014*

## Cancer Research UK – Written evidence

### Executive Summary

1. Cancer Research UK is the world's largest independent cancer charity dedicated to saving lives through research. We support research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses. In 2012/13 we spent £351 million on research in institutes, hospitals and universities across the UK<sup>20</sup>. The charity's pioneering work has been at the heart of the progress that has already seen survival rates in the UK double in the last forty years. We receive no Government funding for our research.
2. Cancer Research UK recruits post-graduate students from an international pool to ensure that we are working with the very best researchers, to produce the highest quality research. In order to support this recruitment and maintain the UK's position as a world leader in cancer research, UK immigration policy should encourage the world's best students to study here.
3. We welcome the opportunity to provide evidence to the House of Lords Science and Technology committee inquiry into the effect of immigration policy on international science, technology, engineering and mathematics (STEM) students. In summary:
  - We believe that a negative perception of UK immigration policy is reducing the UK's appeal to prospective international STEM students.
  - At Cancer Research UK's London Research Institute we have seen international (non-European) PhD student applications decrease from 68% in 2010 to 32% in 2014.
  - The Home Office should do more to effectively communicate the regulations and processes of Tier 4 (General) visa applications to universities and prospective international STEM students.
  - International students who need to interrupt their studies for personal or medical reasons should be able to remain in the UK during the interruption and resume their studies afterward.
  - The Tier 4 Doctoral extension scheme should be amended to allow PhD graduates to remain in the UK for 24 months. The scheme should be better communicated and promoted to ensure that prospective students are aware of this opportunity. Similar extensions should be considered for other degree types.

### Choosing to study in the UK

4. The UK has some of the world's best universities and attracts many of the world's international students. In 2008, 15% of all international doctoral students were studying in the UK, being second only to the US<sup>21</sup>. UK research is highly regarded internationally; in 2008-2012 UK publications accounted for 11.6% of citations and 15.9% of the world's

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<sup>20</sup> Cancer Research UK, Annual Review 2012/13:

[https://www.cancerresearchuk.org/sites/default/files/cancer\\_research\\_uk\\_annual\\_review\\_2013.pdf](https://www.cancerresearchuk.org/sites/default/files/cancer_research_uk_annual_review_2013.pdf)

<sup>21</sup> The Royal Society (2008), A higher degree of concern:

[http://royalsociety.org/uploadedFiles/Royal\\_Society\\_Content/policy/publications/2008/7966.pdf](http://royalsociety.org/uploadedFiles/Royal_Society_Content/policy/publications/2008/7966.pdf)

most highly-cited articles. Among its comparator countries, the UK has overtaken the US to rank 1st by field-weighted citation impact (an indicator of research quality)<sup>22</sup>.

5. International collaboration and researcher mobility are core to the maintenance and further development of the UK's world-leading position as a research nation. In 2012, 47.6% of UK-authored published articles were co-authored with at least one non-UK researcher and the impact of such internationally co-authored articles tends to be higher than that of nationally co-authored articles<sup>3</sup>.
6. Furthermore, many research projects are absolutely reliant on international collaboration. For example, it is necessary to recruit patients from multiple countries in order to conduct clinical trials into rare cancers. The International Rare Cancers Initiative (IRCI) aims to facilitate the development of international clinical trials for patients with rare cancers and hopes to identify and overcome barriers to international trials. The IRCI is a joint initiative between the National Institute for Health Research (NIHR) Cancer Research Network (NCRN) and Cancer Research UK in the UK, the National Cancer Institute (NCI) in the US and the European Organisation for Research and Treatment of Cancer (EORTC)<sup>23</sup>.
7. Immigration policy that restricts research mobility jeopardises our ability to conduct and communicate world-class research. The international make-up of our research community is vital for the sharing of best practice, expertise and skills and to promote important international collaborations. We are therefore concerned that the appetite for international students to study in the UK appears to be waning:
8. International (non-European) PhD student applications to Cancer Research UK's London Research Institute (LRI) dropped from 68% in 2010 to 32% in 2014 (854/1254 and 338/1059 respectively). The biggest drop of 50% to 32% was seen between 2013 (647/1286) and 2014. As Indians are the largest national group of international students that apply to the LRI, this decrease is likely to be mirroring the UK-wide trend in declining Indian students studying in the UK, which has been noted by others<sup>24,25</sup>.

#### **Obtaining a Tier 4 (General) visa**

9. Students at Cancer Research UK institutes find that obtaining a Tier 4 (General) visa can be a long and difficult process. At times, this has caused some of our students to miss the start of their program of study. The difficulty of this process is often dependent on the nationality of the student and is particularly arduous if a student is applying from outside of their home country. We would like to see the Home Office better communicate regulations and processes to visa applicants to ensure these are transparent and clear. In addition, more support should be offered to applicants who are experiencing difficulties with the process.

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<sup>22</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf)

<sup>23</sup> <http://www.irci.info/abouttheinitiative/>

<sup>24</sup> [http://www.hesa.ac.uk/dox/pressOffice/sfr197/280607\\_student\\_sfr197\\_1213\\_table\\_6a.xlsx](http://www.hesa.ac.uk/dox/pressOffice/sfr197/280607_student_sfr197_1213_table_6a.xlsx)

<sup>25</sup> [Paying its way](#), The Economist, 9th November 2013.

10. Many Cancer Research UK funded graduate students will need an Academic Technology Approval Scheme (ATAS) certificate before they are eligible to apply for a Tier 4 (General) visa. It can take up to 8 weeks for an ATAS certificate to be issued, adding a significant delay to a student's Tier 4 (General) visa application. We would like to see the time taken to issue an ATAS certificate reduced.

#### **Interruption to study**

11. Where international students need to interrupt their studies for personal or medical reasons, such interruption should not place them at a disadvantage to European students. Universities permit students to interrupt their studies for reasons such as serious illness, bereavement or pregnancy. If a student holds a Tier 4 (General) visa then their sponsor is required to notify the UK Border agency (UKBA) of an interruption of study and the student may be required to leave the UK. Generally, this will occur if the interruption is for more than a couple of months. We believe that this presents an unfair disadvantage to international students and in particular, to females who would, in most instances, be required to leave the UK because of a pregnancy. We believe the Home Office should amend their policy to ensure that international students are able to remain in the UK during an interruption to study and can resume their studies afterward.

#### **Post study work opportunities**

12. We are concerned that the closure of the Tier 1 (Post-study work) visa has reduced the appeal of the UK to prospective international students. The Tier 1 (Post-study work) visa, which closed to new applicants in April 2012, allowed students to remain in the UK for two years after their studies. In addition to receiving a high quality education, students are likely to build strong and important professional relationships during their studies and may wish to continue their research in the UK following graduation. If the opportunity to do so appears limited, then students may choose to study elsewhere.
13. The Tier 1 (Post-study work) visa also played an important role in ensuring the publication of research. It is often difficult for a PhD student to publish their research in a journal before the end of their studies. Such publications are not only critical to their future career but often a requirement of securing their first postdoctoral position. The Tier 1 (Post-study work) visa supported PhD graduates to complete the publication of their research, maintain professional contacts in the UK, and apply for postdoctoral research positions. This not only benefitted the graduates but made it more likely that the UK would retain the best researchers.
14. At Cancer Research UK we strongly encourage the publication of all findings that result from the research that we fund. Publication is vital to ensure that our investment in research can realise benefits to the scientific community and wider society. We therefore supported the flexibility allowed by the Tier 1 (Post-study work) visa, which facilitated the publication of our PhD graduates' research.
15. The Tier 4 Doctoral extension scheme, introduced in April 2013, goes some way towards compensating for the closure of the Tier 1 (Post-study Work) visa. It allows PhD graduates to stay in the UK for 12 months after their course completes with full, unrestricted work rights. We believe this should be increased to a 24 month extension.

Furthermore, the scheme should be better communicated and promoted to ensure that prospective students are aware of this opportunity. We would like to see students studying for other degree types offered similar visa extensions to ensure that the best talent is retained in the UK.

*20 February 2014*

## Confederation of British Industry (CBI) – Written evidence

To thrive in an increasingly competitive world, the UK develop a high-value, knowledge-intensive economy, founded on high levels of productivity and innovation. Without a sufficient supply of highly skilled STEM workers we will be unable to meet the challenges of rebalancing our economy towards investment and exports and the major growth sectors identified in the UK's industrial strategy. But businesses are already reporting STEM skill shortages. CBI survey evidence suggests that among businesses seeking employees with STEM skills and knowledge, 39% currently face difficulties, and these recruitment difficulties are set to escalate, with 41% of employers anticipating difficulties over the next three years.<sup>26</sup>

Attracting international students to study STEM subjects at UK universities plays a key role in building the STEM skills pipeline, filling skills gaps and ensuring that the UK remains a world-leading location for high-skill STEM industries. With our global competitors taking action to up-skill workforces and seeking talent from the global STEM skill pool the UK must work hard to remain a competitive destination for both domestic and international STEM talent.

The UK's world class education sector also helps us to compete globally and is rightly identified by the government as an important export industry which has even more potential to contribute to UK growth and competitiveness. The fees paid by international students support centres of academic excellence in the UK. The CBI has long argued that the number Tier 4 student visas should remain uncapped and we have strongly welcomed public comments from the Prime Minister and Home Secretary that that there is no cap, and no plans to introduce a cap, on the number of international students able to come to the UK to study legitimate courses. Such messages are vital in to communicate to the world that the UK welcomes genuine students, here for high quality learning.

It is clear, however, that this message has not always been heard by the talented students that we need to attract. A period of continual change, messages about tightening of the system and poor levels of customer service have combined to create a perception that the UK is not open for business. We have seen a worrying decline in some of our traditional markets, with the number of Indian students being granted visas falling 24% in the latest figures. CBI members report that prospective students often perceive that getting a UK study visa will be more difficult than is actually the case. There clearly remains a significant communication challenges for UK government and universities to address this misconception. The British Council's work on the GREAT campaign to promote the benefits of studying at UK universities plays a vital role in making clear to students that the UK remains open for business. The campaign should be evaluated and best practice rolled out to priority markets.

The closure of the Tier 1 (post-study work) route of the points-based system has also changed the landscape by making it more difficult for people to pursue employment in the UK after completing their studies. Under new rules students can stay for three years post-

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<sup>26</sup> CBI/Pearson, *Changing the pace: Education and Skills Survey 2013*, June 2013.



study only if they find graduate-level jobs with sponsor companies on salaries of £20,300 or higher. While the minimum salary level should not cause significant difficulties in STEM sectors, given STEM graduates have higher earnings on average than non-STEM graduates, this change has increased the bureaucratic burden of recruiting international graduates. Business must now secure a sponsorship licence and obtain a visa for international graduates. UK Visas and Immigration (UKVI) customer services and processes must continue to improve, and at a faster pace, to minimise the burden on businesses of these processes. UKVI must improve customer service and communications and speed up processing times.

All PhD students are now allowed to stay in Britain for twelve months after they have completed their PhD before having to find a job or start a business. The impact of this change should be evaluated and we should look at extending to other postgraduate STEM courses which have the potential to fill skills gaps or which are under threat due to a drop in numbers.

*21 February 2014*

## **Council of Professors and Heads of Computing in the UK (CPHC) – Written evidence**

- Are changes to immigration rules having an adverse effect on prospective international STEM students choosing to study in the UK?

It is difficult to ascertain whether the immigration rules are having an adverse affect on international STEM student enrolments in UK universities, without undertaking primary research. To date, CPHC has not undertaken such a study, nor has it seen a report that details such a study. However, since the changes to immigration laws in the UK there has been a 2.3% drop in the number of non-UK domiciled first year student enrolments, according to recent HESA figures; international postgraduate student enrolments fell by 1% during this period, the first drop after 16 years of growth. By contrast, in countries where more inclusive changes have been made to immigration policies (Germany for example) there has been a rise in international students enrolling in first year courses. This therefore gives us grounds to suspect a causal link. Of course until research has been conducted that actually asks prospective international students why they did not choose a UK institution this cannot be confirmed.

- Is there a perception that these new policies could be sending out unwelcoming messages abroad?

One way that these policies could be negatively affecting overseas student numbers is through sending out an unwelcoming message. The new system, whilst not directly obstructive to the ability of universities to recruit international students, is extremely rigid. If enough potential applicants believe the anecdotal, then the effect is real. We believe this to be the case, and that if from the point of the applicant the process is less predictable in terms of time and outcome it will deter applicants. These equate to financial and opportunity costs, and hence present an additional burden on UK universities trying to attract students. Forums used by international students and applicants state that mistakes during application, even small ones, can result in an unsuccessful application. Perhaps the intricacies of the application process are what really represent the constant “pinpricks and red tape” referred to by Professor Acton, former Vice Chancellor of the University of East Anglia. This would almost certainly promote an unwelcoming message to people who we should be encouraging to move here, as the Germans (among others) are actively doing.

- How have the numbers and demographics of STEM students in the UK changed since the introduction of policy reforms on immigration?

There has been a considerable drop in the number of students from India coming to the UK, a fall of 23.5% overall, including a 28% drop in postgraduates. Pakistan enrolments fared little better with an overall decline of 13.4%, including a 19% drop in postgraduates. The total effect on international recruitment would have been far worse were it not mitigated by a 6% rise in Chinese students and a 15% rise from Hong Kong.

India and China are likely to be the two biggest markets in the future and both represent countries with which the UK has long standing historical and socio-political ties. The British Council surveyed 10,389 Indian students in November 2013 to attempt to ascertain barriers to studying in the UK. They found that 65% of those surveyed stated that high cost was the biggest deterrent to studying overseas. This is unsurprising given that, according to research conducted by HSBC in 2013, the UK is the third most expensive destination for international students at USD 30,000 per year for fees and living costs. The only countries more expensive were the US at USD 35,000 and Australia at USD 38,000. As will be discussed later, Germany (as well as many other European competitors such as France, Hungary and Italy) have led the way in reducing the cost to international students, ensuring various economic benefits which can offset any costs. The British Council survey also indicated that 44% of students were also deterred from studying in the UK due to visa difficulties and 34% stated that not having opportunities to work was also a deterrent.

- Do we have enough data to enable links between cause and effect to be understood?

The above data clearly shows there is a decline in the number of international students enrolling at both undergraduate and postgraduate level. The data does not directly indicate a causal link, but that is not to say that there is not cause and effect. Given the circumstances and the approaches of other countries it is hard not to infer with reasonable confidence that the drop in numbers is, at least in part, caused by the law changes.

Are prospective international students fully aware of immigration policy and do universities and the Government need to improve how they communicate immigration rules?

Yes. The reporting of government communications on immigration rules has been predominantly negative from the perspective of international recruitment and efforts should be to provide a more welcoming message for capable international students.

- As a result of immigration policy, are UK universities now losing out internationally?

Yes. Germany offers many courses taught entirely in English, to the extent that a student may complete a degree in Germany without ever having to learn German. Many other UK competitors (such as France, Switzerland, The Netherlands, Scandinavia and Belgium) are also making it far easier to teach and conduct research activities in English, thereby reducing one of the UK's key competitive assets. There have also been moves to subsidise international students. In Germany, for example, costs have been reduced to an average of just USD 635 a year for tuition fees, plus a further USD 5,650 in living costs, reasoning that the indirect financial benefits of having more international students in Germany will offset this cost. Through our high fees and unwelcoming immigration policy, these economic benefits are being missed. It is important that positive messages are sent out, especially given the increased competitiveness from our direct European competitors.

With such competition, it is highly likely the UK will continue to lose our status as a world leader in the international student market unless we take action. Such action may be reducing the cost of study to international students, increasing the incentives, for example through improving students chances of being able to remain (without difficulty) in the UK

post study; we should also enable them to find work by allowing them to stay longer to search for a job, say six months. Reducing bureaucratic hurdles such as the time taken to complete a student visa application would also improve our market share. Without such action we are sending out an unwelcoming message to people we should be encouraging to come to the UK both to contribute to our national economy and to provide improved global opportunities for the UK in the future.

*20 February 2014*

## Coventry University – Written evidence

This response is provided by Professor Jim Norton FEng in response to the e-mail received from Chris Clarke (Clerk to the HoL S&T Committee) received on 16th January 2014. That e-mail was probably targeting my role as an External Board Member of the UK Parliamentary Office of Science & Technology, however this response is from Coventry University in my role as a Governor.

Coventry University was voted modern university of the year by The Times and Sunday Times Good University Guide 2014. The University currently has over 5000 international students.

The selected questions from the Call for Evidence are repeated below with responses on behalf of Coventry University interposed. I would be happy to follow up this evidence in person with the Committee if that would be helpful.

- **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.**

Despite modest growth in overall numbers at institution level, STEM courses have on the whole failed to grow at the same rate as recruitment to other international courses. There is a marked geographical impact which is representative of international recruitment generally evidenced through significant reduction in STEM numbers from specific markets, particularly but not exclusively India.

- **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.**

It is difficult to evidence a direct link between prospective students and changes to immigration policy. Much of the evidence is anecdotal and comes in the form of feedback from key market based stakeholders. However, data shows declining or 'flat' enrolment levels in a range of markets spanning the Middle East, Africa and South and South East Asia. In some cases, the rate of decline exceeds the percentage fall in non- STEM numbers from those markets. This could suggest that factors influencing the STEM students' choice of the UK as a study destination have been disproportionately adversely impacted.

- **Which UK immigration policies are affecting international STEM students and what issues are they causing**

The key issues are not specific to STEM subjects but have impacted recruitment generally. In the main, the policies that have resulted in the greatest impact are:

- English Language Requirements and in particular the fairly specific demands around Secure English Language Tests.
- Need to prove academic progression

- Changes resulting in the limitation of Post Study Work opportunities. This has been a key driver to declining numbers of students from the South Asia region generally.
  - Visa interviews which have generally been perceived to be a barrier, particularly in light of what are perceived to be more relaxed/welcoming policies adopted by other HE recruitment hubs particularly Canada and Australia
- **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?**
  - We monitor enquiry, application, offer and enrolment data at nationality, faculty and individual course level
  - Through the activities of our front line recruitment teams we proactively seek feedback of key stakeholders including recruitment agents, sponsors, embassies, etc.
  - We do not have the capability to fully assess and link cause and effect. Market level information tends to be anecdotal but is consistent with the points outlined above.
- **Do reforms to immigration policy since 2010 limit the competitiveness of UK higher education institutions in attracting international STEM students.**

The UK remains an attractive destination for international students including STEM students but the direct response to this question, in light of dynamic nature of international student recruitment globally is 'YES'. The general perception is that the UK is a less 'welcoming' destination and undoubtedly other markets are seen as being more competitive/attractive in this regard. However, for this institution this has to be read in the context that overall, we have continued to grow recruitment albeit at modest levels in STEM subjects. However, growth is well below expectation/ambition in certain key markets.

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

In the main, communication of interpretation of policies and policy change has fallen to the HE Institutions.

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

Yes, although no specific data is available to support this statement. In the main, all international students have difficulty in pursuing employment in the UK upon completion of their study due to the very specific requirements now attached to salary/employment level

- **Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other Postgraduate courses at your institution**

No specific evidence one way or the other. Some STEM subjects are particularly difficult for us to recruit to internationally, but there is no evidence to suggest that this is as a direct result of immigration policy

- **Do you consider the sustainability of the current business model at your, or all UK HE institutions at risk from falling international student numbers.**

Our international recruitment business has grown consistently over the last 3 years and whilst we anticipate a slowing of this growth we remain convinced that we can continue to post positive growth overall. However, this is against a backdrop of decline in some significant markets and subject areas in light of significantly increasing competition from HE intuitions overseas.

This response is submitted with grateful thanks to the Coventry University senior management team.

*Author: Professor M. J. Norton, Governor and Audit & Risk Committee Member, Coventry University*

*19 February 2014*

## **Engineering Employers' Federation (EEF), the manufacturers' organisation – Written evidence**

### **Overview**

1. EEF, the manufacturers' organisation, is the voice of manufacturing in the UK, representing all aspects of the manufacturing sector including engineering, aviation, defence, oil and gas, food and chemicals. With 6,000 members employing almost one million workers, EEF members operate in the UK, Europe and throughout the world in a dynamic and highly competitive environment.
2. Skills are central to manufacturers achieving their ambitions on innovation, exporting and growing their business.<sup>27</sup> However growth plans continue to be restricted as companies struggle to access the skills they need. Three-quarters of manufacturers say finding employees with the right skills is one of their key business concerns and over half said it was their main concern. Moreover, four in five companies say they are currently experiencing recruitment problems.<sup>28</sup>
3. Manufacturers rely on the recruitment of graduates to help meet their skills needs, particularly those that hold degrees in the sciences, technologies, engineering and maths (STEM). Non-EEA students are included within this talent pool.
4. Government policy should not restrict this talent pool; however, it is our fear that current migration policy is doing just that. In particular, we are concerned around migration policy that impacts upon non-EEA students and graduates, especially those studying STEM subject or who have graduated with STEM degrees.
5. Of particular concern to manufacturers was the decision to abolish the Tier 1 post-study work route, which we believe should be restored. Alternatively, at the very minimum, the government should seek to explore potential avenues for international STEM graduates to stay in the UK for a period of time after they have finished their studies in order to secure employment. We discuss this in our response.
6. We also have concerns for the future. In order to meet the target of reducing net immigration to 'tens of thousands' we are concerned that government might seek to restrict graduate entry into the UK labour market, upon which manufacturers rely. Restrictions have already been placed on students undertaking in-study work, and we call upon government not to make further restrictions in this area.
7. Moreover, we need to look at the bigger picture – the image UK plc is sending out to international students. The UK is a global leader in higher education provision, and we do not want to see this reputation hampered by migration policy. At a time where manufacturers are facing acute skills shortages, impacting their ability to win and fulfil

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<sup>27</sup> EEF, the manufacturers' organisation, Manufacturing Outlook December 2013 – available on request

<sup>28</sup> EEF, the manufacturers' organisation, Skills for Growth (2012)

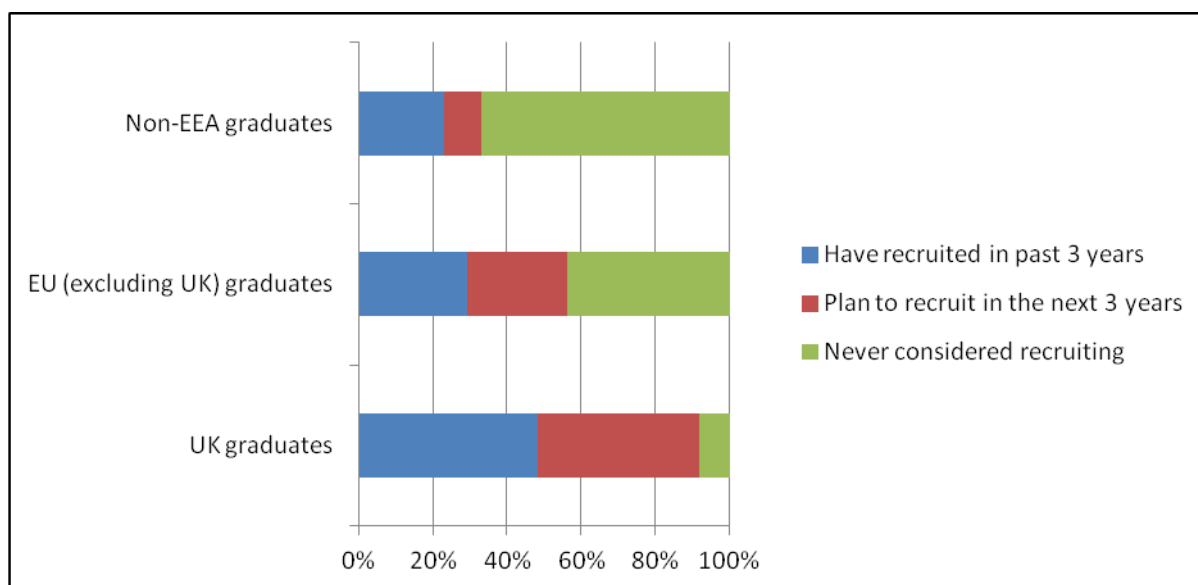


orders, we need a migration policy that attracts as much highly-skilled international talent as possible, including STEM students.

### Overall demand for STEM graduates

8. Manufacturing and engineering companies will have 2.74m openings between 2012 and 2020, of which 1.84m will need engineering skills. This means we need to double the number of recruits with foundations degrees, or degrees.<sup>29</sup> As such, manufacturers are recruiting graduates from within, and outside of the UK (See Chart 1), in addition to sourcing skills through other means such as apprenticeships.

**Chart 1: Manufacturers are recruiting graduates within, and outside of the UK, % companies who have recruited or plan to recruit a graduate**

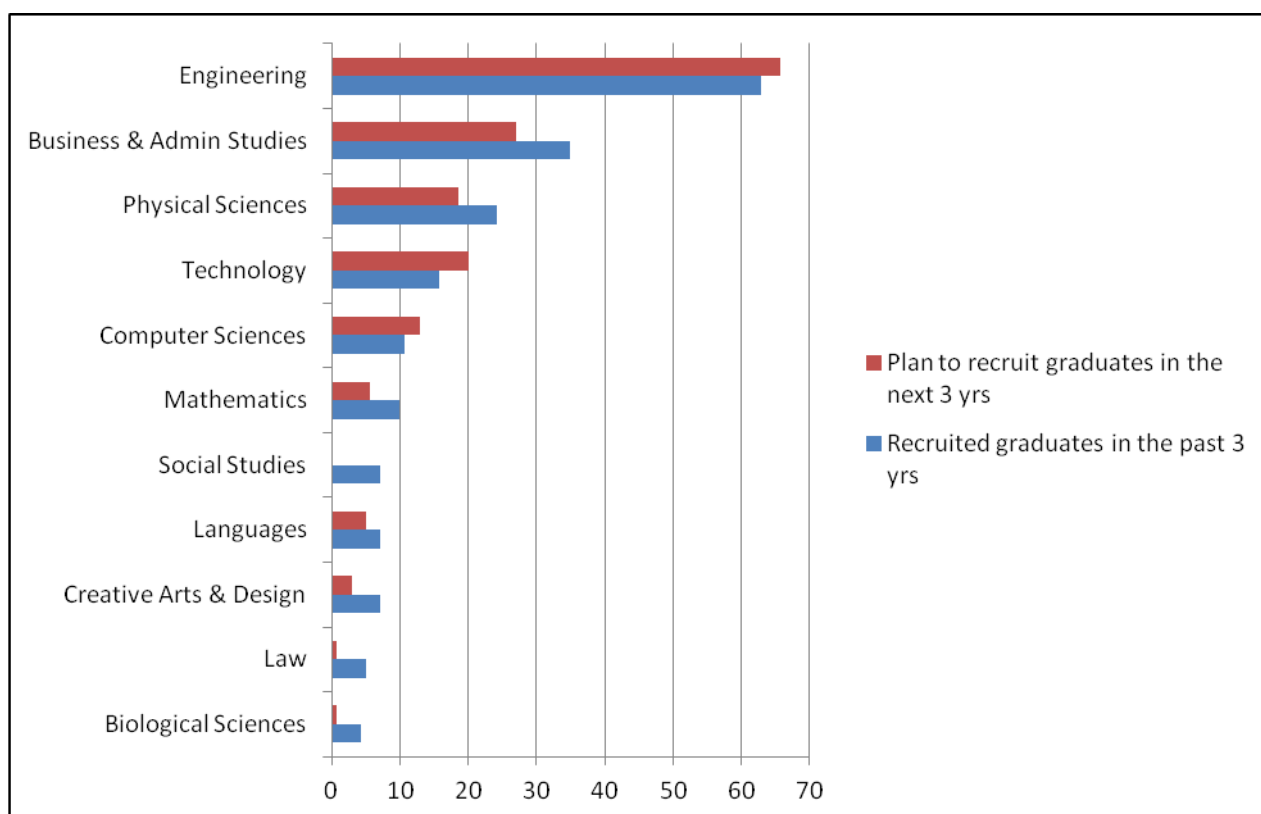


Source: EEF Higher Education Survey 2013

9. Whilst predicting the skills-needs of the future can often be difficult, manufacturers are acutely aware of the skills their businesses need, and therefore have a preference for specific degrees to enable employers to build upon these skills. Unsurprisingly, graduates most in demand from manufacturers are those that hold a degree in an engineering discipline, with 63% of employers saying they had recruited engineering graduates in the past three years and 66% planning to in the next three years. The remaining 'STEM' disciplines – the sciences, technologies and maths graduates, were also in demand, with a particular focus on physical sciences and computer sciences. (See Chart 2)

<sup>29</sup> Engineering UK, Annual State of Engineering Repo (2012)

**Chart 2: Manufacturers demand for STEM graduates, %companies who have recruited or plan to recruit graduates.**



**Source: EEF Higher Education Survey 2013**

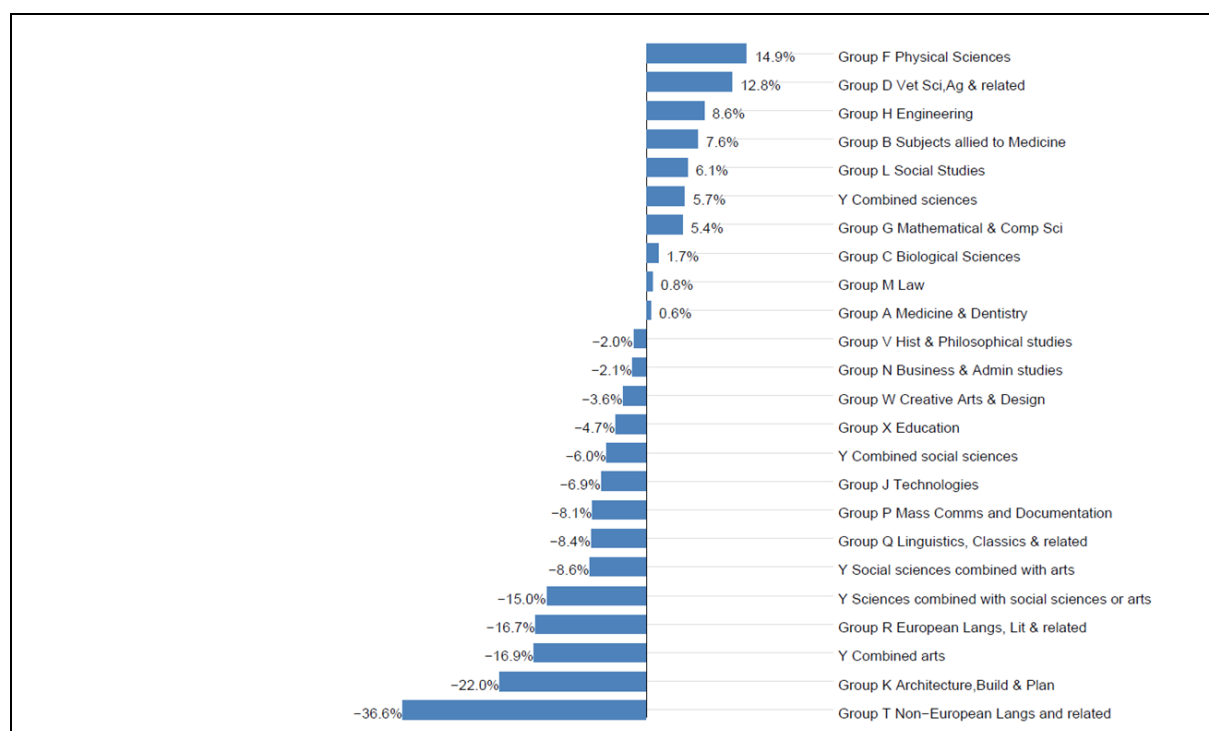
10. As we identified in our Route to Growth report<sup>30</sup>, manufacturers' growth ambitions also focus on developing new products and services and tapping into new markets. As such, a third of employers say they have recruited a business and admin studies graduate in the past three years and three in ten expecting to in the future. However, for the purpose of this inquiry we will focus on STEM graduates.

11. The main concern manufacturers raise is whether their demand will be met by supply. In recent years we have seen a positive upward trend in engineering applications. Indeed UCAS data published in 2013 revealed that the number of 18 year olds applying to study engineering at university increased by 8.6%. UCAS end of year cycle for 2013 shows that whilst there were 15,577 acceptances for engineering, this represents only 5% of all acceptances.

<sup>30</sup> EEF, the manufacturers' organisation, 'The Route to Growth – An Industrial Strategy for a stronger, better-balance economy' (2012)

Engineering Employers' Federation (EEF), the manufacturers' organisation – Written evidence

**Chart 3: Applications for engineering degrees has increased in recent years, Proportional changes in UK 18 year olds application rates by subject group (2010-2013)**



Source: UCAS 2013 Demand for full-time undergraduate higher education (2013 cycle, March deadline)

### The Impact of migration policy on STEM supply

12. Whilst we can see then that the overall number of learners choosing to study STEM disciplines, specifically engineering, at university is on the rise, ensuring that this pipeline reaches employers is difficult due to migration policy. This is in addition to the numbers of STEM graduates that occupy non-STEM roles, when many moving into the service-sector for example where STEM graduates are also in demand.
13. Data from HEFCE has suggested that the proportion of international students from outside of Europe is particularly high in some areas of engineering – in 2011-12; at least 16% of students in all engineering sub-disciplines were international students. Moreover, international students accounted for 31% of undergraduate chemical engineers, and 22% of electrical, electronic and computer engineers.<sup>31</sup>
14. EEF's own survey data shows that a quarter of manufacturers had recruited a non-EEA graduate in the past three years (See Chart 4). There is not always a specific preference to recruit a non-EEA graduate, but a result of not being able to access the skills domestically. However, manufacturers may seek to recruit from outside of Europe for

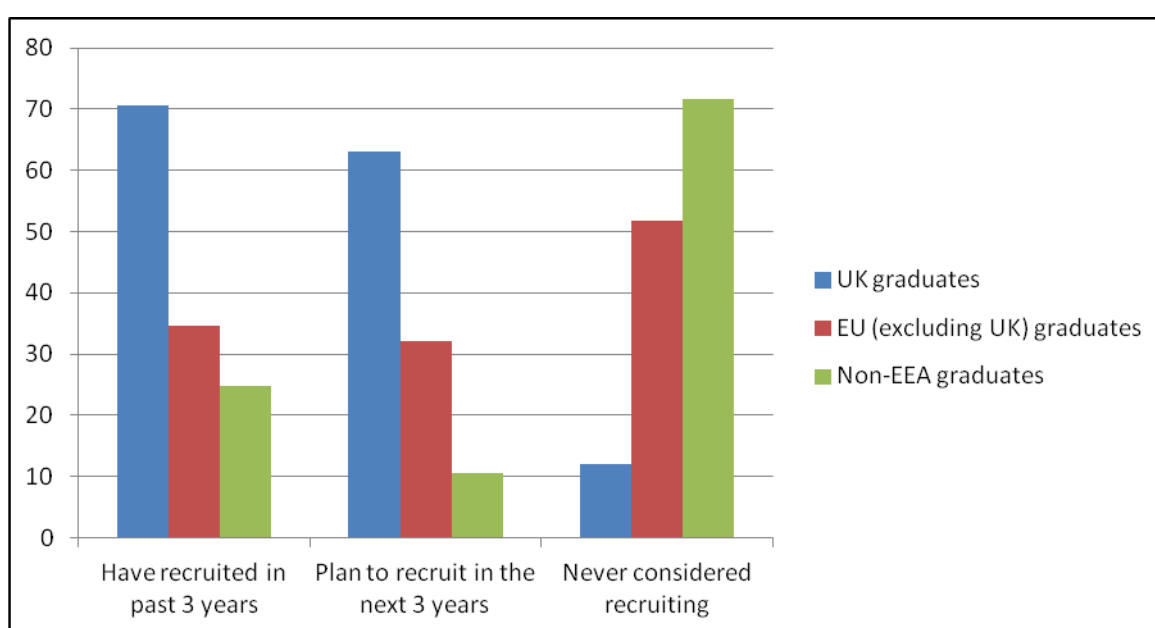
<sup>31</sup> HEFCE, <http://www.hefce.ac.uk/whatwedo/crosscutting/sivs/data/domicile/>

specific language skills for example, particularly those that are seeking to tap into overseas markets.

15. Only one in ten specifically plan to recruit a non-EEA student in the next year, with seven in ten never considering recruiting a non-EEA student. Whilst then manufacturers rely on international graduates, many do not tap into this talent pool. This is mostly likely to be the case if the company is an SME. This may reflect the negative rhetoric surrounding recruiting non-EEA nationals, or the real, and perceived hurdles in terms of administration and cost of recruiting an international graduate.

16. In addition, graduate recruitment is just one channel through which manufacturers source skills. Two-thirds of our members for example plan to recruit a manufacturing and engineering apprentice in the next 12 months. Moreover, anecdotal evidence from our membership suggests that many companies are focusing their efforts, and investments in apprenticeships, which is likely to have an impact on graduate demand.

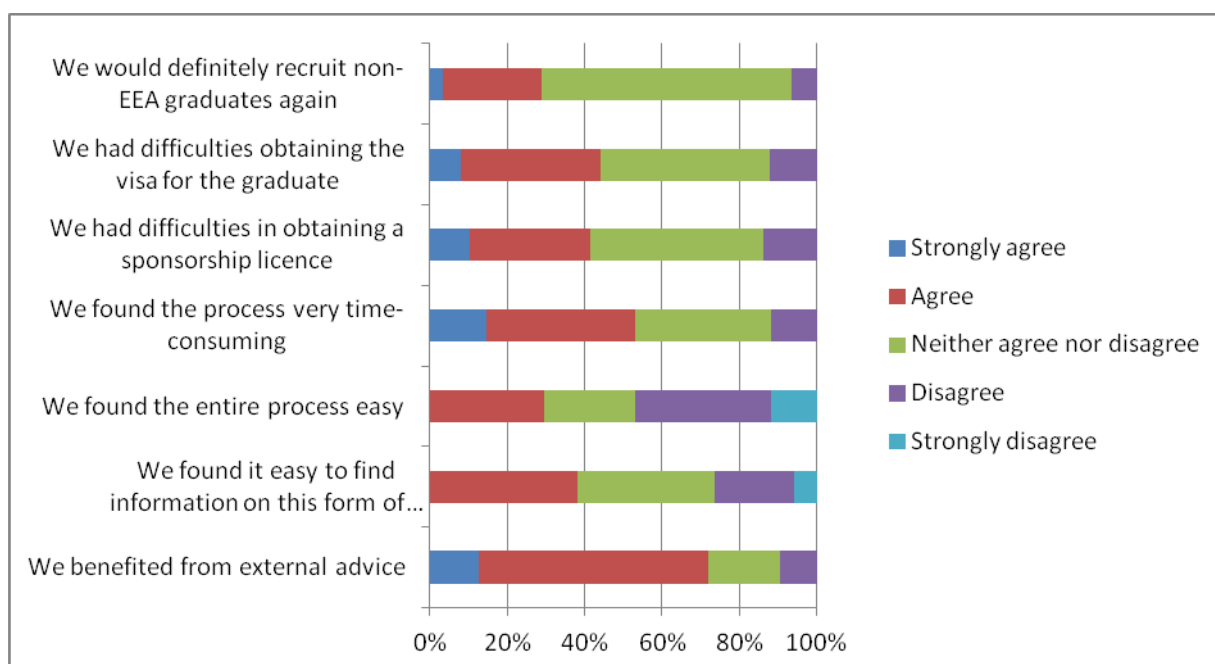
**Chart 4: Manufacturers recruit non-EEA graduates and plan to in the future, %companies who have recruited graduates or plan to recruit, by domicile**



**Source: EEF Higher Education Survey 2013**

17. There is a real need for government to make it simpler for manufacturers to recruit non-EEA students, as this is currently not the case. Almost half of manufacturers disagreed that the process of recruiting a non-EEA graduate was easy, and over half (53%) found the process very-time consuming. Worryingly, four in ten companies said they had difficulties securing a sponsorship licence and almost half had difficulties obtaining a visa for the graduate. (See Chart 5)

**Chart 5: Manufacturers face challenges recruiting non-EEA graduates, %companies reporting ease of which they recruit non-EEA graduates**



**Source: EEF Higher Education Survey 2013**

18. Yet manufacturers clearly value non-EEA graduates as in spite of these difficulties, a positive balance of 22% of companies say they would definitely hire a non-EEA student again. This reflects the value of knowledge and skills that graduates from outside of Europe can bring to the company, and also the difficulties companies continue to face finding high-level skills within the domestic labour market.

### **Making it easier to recruit Non-EEA Graduates**

19. In our Skills for Growth report<sup>32</sup>, we recommended that the government reinstate the post-study work route, widening the talent pool available for manufacturers. Since then, we have seen no movement towards considering this. Abolishing the post-study work route has meant that employers are recruiting from a smaller talent pool. This impacts particularly on SMEs and those companies that are not already sponsors. Graduates could previously transfer to a Tier 1 post-study work visa upon completion of their studies. This allowed those that had graduated from UK higher education institutions to remain in the UK for a maximum of two years to take-up employment, without needing a sponsor.

20. However, the government argued that the route was subject to abuse and subsequently closed to new applicants in April 2012. Since then the government has introduced a post-study work route, but this is limited to PhD students able to work for

<sup>32</sup> EEF, the manufacturers' organisation 'Skills for Growth' (2012)

just one year upon completing their course. We have not seen any appetite to extend this route further. In addition, government has made it easier for graduate entrepreneurs to switch to Tier 2 and some to switch to Tier 5; however we do not see this having any real impact on manufacturers' ability to fill their vacancies.

21. Whilst non-EEA graduates retain the opportunity to switch from Tier 4 (Student) to Tier 2 (Highly-skilled migrant)<sup>33</sup> visa for four months after graduation, it is highly unlikely those that are not already sponsors will be able to secure their sponsorship licence within this short timeframe. Therefore SMEs, often without HR departments, are disadvantaged as they are unlikely to be able to commit the time and resources to navigating through what is a complex, and time-consuming migration system.
22. There are alternative ways in which government could make it easier for industries with a high proportion of hard-to-fill vacancies to recruit non-EEA students. Government could use the shortage occupation list<sup>34</sup> to identify which job roles are not being filled by the domestic workforce, and are therefore likely to require skilled migrant workers from outside the EEA. The majority are currently STEM occupations – in particular engineers and scientists. This has been a consistent pattern since its introduction and demonstrating the demand for engineering roles further, the Migration Advisory Committee (MAC) last year advised that additional engineering occupations be included also. The MAC's recommendations are evidence based, looking at a number of credible metrics to form conclusions. We fully support the recommendations MAC put forward and believe they reflect the current shortages within industries such as manufacturing and engineering.
23. The list could be expanded to graduates also, allowing international students studying disciplines that fall within these categories to stay in the UK for a period of two years after their studies to support them in seeking employment within these fields. This is not a radical proposal, indeed the Science and Engineering Graduate Scheme allowed non-EEA nationals who had graduated from UK higher or further education institutions in certain physical sciences, maths and engineering subjects with a 2.2 or higher grade to remain in the UK for 12 months after their studies or pursue a career without needed to secure, what was then, an Employer Sponsored Work Permit.
24. The other area of the Tier 4 (Student) route that is of interest to business and relevant to this inquiry is in-study work. Currently, students are allowed to work for 20 hours each week during term time, rising to full time hours during holiday periods. This provides a pool of labour for employers, particularly those based in and around university towns. This can be particularly useful if holiday times fall within peak periods of demand. Whilst this may be assumed to be in areas such as retail and hospitality, this can also occur within manufacturing particularly in sectors such as food and drink manufacturing. We would be concerned if further restrictions were placed on students that impacted their ability to work whilst studying.

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<sup>34</sup> <http://www.ukba.homeoffice.gov.uk/sitecontent/documents/workingintheuk/shortageoccupationlistnov11.pdf>

25. To date, the use of Tier 5 has not been an issue raised by many of our member companies. However we have recently endorsed a potential new Tier 5 model that would support manufacturing and engineering companies, by helping them secure a non-EEA student wishing to undertake their placement in the UK.
26. We see potential opportunities within this. The demise of sandwich courses from UK higher education institutions has meant fewer companies are engaged in this way. Widening the talent pool to non-EEA students studying overseas gives companies the opportunity to access skilled undergraduates, and new graduates. This would be particularly useful for those companies wishing to fill growth ambitions such as exporting and tapping into new markets.

*14 February 2014*

## ANNEX

### Overview of the points-based system

<b>Tier 1</b>	Highly valued migrants <ul style="list-style-type: none"><li>• Exceptional talent</li><li>• Entrepreneur</li><li>• Investor</li><li>• Graduate Entrepreneur</li><li>• Post study work (closed to new applicants)</li></ul>
<b>Tier 2</b>	Highly skilled migrants: <ul style="list-style-type: none"><li>• General</li><li>• Intra Company Transfer</li><li>• Minister of Religion</li><li>• Sports person</li></ul>
<b>Tier 3</b> (currently suspended)	Low skilled migrants
<b>Tier 4</b>	Students
<b>Tier 5</b>	Temporary/Youth Mobility <ul style="list-style-type: none"><li>• Creative and sporting</li><li>• Charity Worker</li><li>• Religious workers</li><li>• Government authorised exchange</li><li>• International agreement</li></ul>



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Professor Sir Peter Gregson, Cranfield University, and Professor Helen  
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*Evidence Session No. 5*

*Heard in Public*

*Questions 53 - 63*

TUESDAY 11 MARCH 2014

Members present

Lord Krebs (Chairman)  
Lord Dixon-Smith  
Lord O'Neill of Clackmannan  
Lord Patel  
Baroness Perry of Southwark  
Lord Peston  
Lord Rees of Ludlow  
Earl of Selborne  
Baroness Sharp of Guildford  
Lord Wade of Chorlton

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**Examination of Witnesses**

**Tim Thomas**, Head of Employment and Skills Policy, EEF, **Professor Sir Peter Gregson**, Chief Executive and Vice-Chancellor, Cranfield University, and **Professor Helen Atkinson** CBE, FEng, Head of Department of Engineering, University of Leicester; Vice-President, Royal Academy of Engineering and Chair of the Standing Committee on Engineering and Training; and Immediate Past President, Engineering Professors' Council

**Q53 The Chairman:** I would like to welcome our second panel of witnesses to this morning's inquiry into higher education, STEM and changes to Immigration Rules. In a moment, I would like to invite the three panellists to introduce themselves for the record and, if you wish to make a brief opening statement, please feel free to do so, but do keep it brief, because we have quite a few points of discussion to get through and we would like to have plenty of chance to hear you air your views. Perhaps Professor Atkinson could kick off.

**Professor Atkinson:** Thank you, Chairman. I am Professor Helen Atkinson. I am the Head of the Department of Engineering at the University of Leicester, so I can speak here as the Head of the Department of Engineering. I am also a Vice-President of the Royal Academy of Engineering and Chair the Standing Committee on Education and Training, and I am the immediate Past President of the Engineering Professors' Council, which represents

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engineering in higher education throughout the UK. I have legitimately had sight of three sets of evidence, so am able to bring reflections from all three sets of evidence to the panel.

**Professor Gregson:** I am Peter Gregson. I am the Chief Executive and Vice-Chancellor of Cranfield University. Cranfield is a specialist institution. It is exclusively postgraduate and just works in the space of technology and management, so I will constrain my comments to that for which I have responsibility. We are therefore a small institution with only 4,500 students; however, with the concentration that we have in technology and management, we are still the largest UK provider of master's-level students in engineering and technology. That is particularly relevant for this panel.

**Tim Thomas:** I am Tim Thomas. I am Head of Employment and Skills Policy at EEF—the Engineering Employers' Federation. We represent about 6,000 engineering and manufacturing companies in the UK, both small and large. They operate in the UK globally and on a European basis as well. We regularly speak to and survey our members and, actually, we are just in the process of finishing a survey on the importance of higher education to our members. Hopefully today I can add an employer perspective to some of your questions.

**Q54 The Chairman:** Thank you very much. We would like to start off, before we get into the details of changes to Immigration Rules and how they might have affected things, by getting some basic facts out on the table of whether, from your perspective, the numbers of students coming from outside the EU have changed in the last few years and whether particular countries and particular degree courses, undergraduate or postgraduate, have seen changes, and the impact of those on your institutions, particularly for the two university representatives, and perhaps also on employers. You will be aware that we had some evidence from BIS that summarised the HESA statistics suggesting that there have been some changes, and the written evidence from a number of sources has also reinforced that, but it would be very good to hear from you, with your personal perspective from the experience you have found. Perhaps, Professor Atkinson, you could kick off.

**Professor Atkinson:** The evidence shows that on the undergraduate side—I am focusing on engineering—the numbers appear to be relatively insensitive to the change in Immigration Rules. I can provide some comment on why I think it is. On the postgraduate taught side, which is MSc students, there is an impact that can be traced to the changes in the Immigration Rules. The country that has been particularly affected is India. Again, I can provide some comment, if that is helpful, on why we think that India has been particularly affected. Would you like me to make those comments?

**The Chairman:** Perhaps we will just get the facts out and then we will come to discuss the interpretation in a few minutes, but I would very much like to hear from you about that in a few minutes.

**Professor Gregson:** To set a bit more of the context of our postgraduate student cohort at Cranfield, a third or thereabouts are international students, a third European and a third UK. When I look at the third who are international students, in 2011-12, as a function of the changes in 2010-11, we saw a big decline in the number of international students—about 15%—which was in line with the UK sector overall from the data that has been provided by BIS.

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If I look now two years on at the data, we are about plus 4% compared to where we were in 2010-11, so that is more consistent with the type of data supplied by the Russell Group-type universities. The big impact from India is certainly also very much in evidence at Cranfield. Actually in Cranfield, it has affected both the management and the engineering cohort to the same degree, which is about half. We have lost about half of our students from India in that one year. It is increasing slowly again.

**The Chairman:** At Cranfield, has that had any significant impact on the viability of taught masters courses?

**Professor Gregson:** No. This area is of particular importance when you think about how you manage an institution, be it a large university or a small university. That is about managing risk. All our programmes are designed in such a way that we do not have a particularly dominant cohort, so we mitigate the risk at the point of programme delivery and right the way through the system. Obviously it is on our risk register, but at the moment there has been no evidence that we have any courses that have become unavailable as a direct result of changes in the immigration rules.

**Professor Atkinson:** If I comment more generally about the sector on that question, focusing on engineering again, if you look at departments of engineering, whether they are embedded within schools or standalone departments, every department has its income streams. That is how you make a department sustainable. You have your undergraduate income stream, you have your taught postgraduate income stream. There are research streams, there are enterprise streams of income. The Engineering Professors' Council's observation across the sector is that in a number of departments the health, viability and sustainability of their undergraduate programmes, including for home students, is rather dependent on the overall business model, which includes the income stream from the postgraduate taught.

What actually happened was rather a shock when the new Immigration Rules were introduced. A number of departments took a hit, particularly in that year. As Peter comments, there is now some evidence of some regeneration. The hit affected departments quite significantly. It has to, because even if India has been one part of your recruitment and you have recruitment from a number of other countries as well, the loss of 10 students at £15,000—90 students or 200 students, which might be the case in some cases—is a very significant income stream. Different universities deal with it in different ways. Again it depends on the size of your set-up, but on the effect on postgraduate taught, if you halve the number of your Indian students, for example—this applies both for engineering and computer science; there is definitely a halving in numbers nationally for the Indian students—you are bound to affect the financial situation of a number of departments. It is more difficult to track exactly how that has affected departments, because departments tend to be managed, as Peter says, within a risk environment, so departments will have taken some actions to counteract what is going on.

**The Chairman:** What about from the employers' side? Have you seen this flow-through of change in numbers affecting recruitment?

**Tim Thomas:** The answer is possibly. Our most recent survey indicates that about 25% of our members recruited a non-EU graduate in the last three years. When we asked a forward-looking question of our members—whether that was what they planned to do in

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the future—that just dropped to one in 10. The background to our sector, which may be an explanation, is one of an acute and chronic skills shortage. One of your previous witnesses referred to a lack of skills in the nuclear sector. I would actually expand on that. It is not a lack of skills in the nuclear sector, it is in all sectors. Therefore, any shortage or reduction in international skills is going to be immediately felt by our members. That is of concern here.

**The Chairman:** I would like to move to Baroness Sharp, who will pick up the issues with Immigration Rules that Professor Atkinson was talking about.

**Q55 Baroness Sharp of Guildford:** We could carry this forward by my asking you how far you feel that the Immigration Rules that have been put into effect over the last few years and the changes that are being proposed have affected these figures that you have been giving us. How far is it the Immigration Rules or how far is it other factors, such as the change in value of the rupee and so forth?

**Professor Atkinson:** There is undoubtedly a combination of factors at work. We can track fairly precisely an adverse effect from the removal of the post-study work for two years, which has affected Indian students in particular. The reason for that, and the reason why it particularly affects postgraduate taught, is that doing an MSc is a discretionary purchase. They are doing MScs really for career advancement and for their personal and professional development. Generally in India it is a family decision, and they take out a loan, which is secured against the house, the family home. When they come to the UK, when the two years post-study work route actually existed it enabled them to repay at least part of the loan via some work in the UK. Indeed, gaining some work experience in the UK was an important part of career development. Tim might like to comment, but from an employer's point of view. Post-study work actually gave employers an opportunity to have a good look at someone and decide whether they really did want to employ them for their specialist skills.

The distinction with the undergraduate students, and this explains why the undergraduate market has not been so sensitive to the changes, is that the undergraduate students are generally either sponsored by their Government or—and this applies to China and indeed other countries—they generally come from prosperous families who are less sensitive to all those things that are going on. This is why I think there is a strong view across the sector, particularly from those who are at the coalface of international recruitment, that the removal of post-study work has had a big effect on postgraduate taught recruitment rather than the undergraduate cohort.

There are obviously other factors at work, such as exchange rates with currency, with the rupee and so on, but the other thing we would comment is on the constant shifting in position about the rules about immigration. It is not just a one-off but the fact that over the last two to three years there has been a constantly changing pattern of rules. I do not know whether you fully understand, but I do not fully understand the rules, so I think it is hard for the students to keep track of them. The image that is being projected by the UK out into this very competitive international marketplace is one of a lack of welcome, but also of a series of changing rules. For the students it is hard trying to keep track of what is going on, just as it is for us.

**Professor Gregson:** Perhaps I can pick up on one or two of Helen's themes under the area of policy, process and perception, because that would embrace Helen's comments. I do so

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from the perspective of the average age of postgraduate students at Cranfield being about 29, so it is about career enhancement, the type of programmes we do, rather than the early stages of employment.

First of all on policy, at the end of the day, clearly what the UK has in higher education is a prize. If we want it to remain competitive, we must be welcoming, but of course government has a responsibility to tackle abuse. All of us in higher education recognise the balance that has to be provided within the policy framework. I would certainly endorse Helen's comments around the consistency and the changes. They have also been pretty severe changes. If we take just the post-study work example, to go from 24 months of post-study work, which was one of the longer periods, to four months, which is the other extreme, is a very big swing. That is the type of thing that, moving on to perception in country, has a very big impact.

Regarding perception, there is no doubt about it that whether you look at the anecdotal evidence in country or whether you look at the statistics and the data that we have from our different sources in the UK, a combination of different factors have had a significant impact. There is post-study work, and we have not mentioned visas and the cost of visas yet. At Cranfield, because of our offering, 50% of our students have to get ATAS approval first of all. ATAS is administered by the FCO. Visas are administered by the Home Office. All sorts of issues mean that it is just more and more difficult for students to find their way through the approvals process. The consequences, to my mind, are very clear. At the end of the day, we are finding it more challenging when we are trying to present a welcoming front internationally. The issue of India is particularly specific, I would say.

Perception leads directly on to process, because at the end of the day the process times associated, whether with ATAS, visa or what have you, are getting longer. Certainly we have had instances, both last year and this year, when actually the approval times for ATAS were well outside target times and led to students, who would in previous years have secured approval, not securing it in time to be able to take up their place at Cranfield. Process and perception need to go together.

**Professor Atkinson:** We should further comment just about engineering. Engineering is distinctly affected as opposed to the other physical sciences, because there is a tradition of recruiting postgraduate taught students in engineering, in a way that there has not been in the physical sciences such as physics and chemistry. One of your questions is whether STEM is affected more. Actually, the numbers of postgraduate taught in physics, chemistry and maths are relatively low. Engineering, which again feeds into the engineering employers, is the second highest recruiter of postgraduate taught students other than business, so it has had this disproportionate effect on engineering and engineering departments, but also probably on engineering employers.

**Tim Thomas:** I will start with some numbers and then hopefully give some explanation of what we think is behind the numbers. When we surveyed very recently our members, we asked specifically about their experience, if I can call it that, of dealing with our immigration system in recruiting a non-EEA graduate. Some 53% told us that they found the process very time-consuming. Four in 10 said they had difficulties in securing a sponsorship licence. Over half had difficulties in obtaining a visa for a graduate, and that is a fairly grim reflection from an employer's perspective of their interaction with our immigration system.

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**Q56 The Chairman:** Tim, were those surveys of students or surveys of employers?

**Tim Thomas:** These were employers. This is what employers have told us about their interaction of trying to recruit a non-EEA graduate very recently. With the post-study work route—the reduction from 24 months to four months—if you are perhaps a larger employer and you are already engaged with the immigration system, and you have the resources at your disposal, perhaps four months is a period in which you could navigate the immigration system, assuming you had found the graduate. If you are not already engaged, four months is in no way a sufficient period of time to hope to navigate the current immigration system.

The majority of our members, about 70% or so, also told us that they benefited from external advice. What I believe is behind that is the fact that, to have any realistic chance of navigating this system, you are going to go to a specialist adviser. I am a lawyer by background and qualification. In the past, I have done some work in the immigration field. In the past, I have tried to explain to employers what their obligations are, both in terms of assessing and proving the right to work, but also in obtaining a visa. That was some time ago. I still attempt to keep up with the area. I entirely sympathise with Helen's comments, because it must be baffling to anyone who does not have a fair degree of existing knowledge. To be honest, even though I subscribe to bulletins and updates, they come through on a weekly basis, and I am in no way sure that I, in any way, am au fait with the current Immigration Rules. It is so much harder for an employer, which is why I think the majority say that they go for external advice, which adds substantially to the cost of the exercise.

**The Chairman:** Would you be able to give us, not necessarily now, an estimate of what the typical cost would be? I am thinking of an SME with a relatively small number of staff and turnover—what the impact of that would be on them.

**Tim Thomas:** Yes, I will go away and perhaps come back to the Committee with an estimate of what the likely additional cost would be, on the assumption of that. Part of the difficulty is, of course, that if you get the process wrong there are severe penalties for employers. The civil penalty for an employer employing someone without the right to work is about to double. In addition to that, the grounds upon which an employer is able to mitigate the civil penalty are about to be dramatically reduced. From an employer perspective, it is going from £10,000 to £20,000. The ability to mitigate on the basis that you have conducted a partial check is about to be extinguished altogether. The only mitigation is self-reporting to UKBA or UKVI. Actually, the risks of wrongly going about the process are about to increase quite substantially, which perhaps is a further disincentive for employers to actually dip their toe in this water at all.

**Q57 Lord Peston:** My question is prompted by something that you said very early on, Professor Atkinson. You postulated the case that the income for taught masters in engineering falls, and I thought to myself, "Well, why is this a problem?" Presumably, it is a problem because, if you could adjust all your costs appropriately, there would not be a problem; the net position would remain the same. What you are saying is that, in fact, disproportionately or to a large extent, your costs are fixed and, therefore, you end up with a financial crisis.

**Professor Atkinson:** We employ people. The majority of our cost is the salary of people.

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**Lord Peston:** I understand that. I have to keep reminding myself that employing people is not a variable cost, even though when I was young I used to teach that it was, but a fixed cost. That is the nature of the problem. Have I got the analysis right?

**Professor Atkinson:** If I could comment further: if you look at the timescale under which universities operate, we are recruiting one year for students to arrive in October—for example, this coming year. You obviously have your staff, who are essentially a fixed cost. In the year immediately after the immigration changes were introduced, suppose you halve your number of MSc students. For somebody who was very dependent on India, and I very much take Peter's point about the fact that you try to mitigate your risk by having a broad base of recruitment, supposing you halve your number of MSc students and lose several hundred thousand pounds of income in one year, in one hit—and it is actually quite difficult to predict that is going to happen because the Immigration Rules changes are introduced mid-year—then you are faced with, “What are we going to do?” To provide quality engineering education is an expensive subject to teach, and rightly so. That is part of the reason why people are coming from around the world, because they know that what they will get is a quality education.

It is interesting. In January, when our students graduated with their MScs, I went round and spoke to every single graduating student. I said, “Why did you come to the UK, rather than doing it in your home country or going somewhere else?” The answer was our reputation for very high-quality hands-on education, where they get lots of practical experience. That is the difficulty: adjusting in-year, in effect, to quite a big financial shock.

**Lord Peston:** Just to clarify, if you have lost several hundred thousand pounds, that is the equivalent these days of quite a few professors who you cannot fire. You could not when I was a professor, but the other bit that I was not clear about is whether this is special to engineering or if you are saying this is right across the board in the subjects we are looking at.

**Professor Atkinson:** If you look at the subjects, the biggest recruiter of postgraduate taught is the business specialism that has affected Cranfield, alongside engineering. The second biggest recruiter is engineering so, disproportionately, engineering and indeed business departments, which are I know outside your remit here, have been affected by these changes. That is alongside this big demand to actually increase the flow of engineering graduates more generally to help to fill the skills gap. There is a knock-on effect on undergraduate education because of what is happening at postgraduate taught level, which then affects what is actually happening in terms of what the UK wants us to do with our UK-domiciled students and what we can really deliver to them.

**Professor Gregson:** I just want to add that Helen is absolutely right in terms of the overall impact. My comments earlier on were about whether it has affected the viability of programmes. That is a bigger question about the way you manage an institution, but certainly across the two areas that are important to Cranfield—management and technology—anything that has such a disruptive element as removing half of a certain cohort of international students on a business programme for which students are paying £30,000 a year for an MBA, has a very significant impact in-year. Of course, we are long-term institutions, so we mitigate the risk appropriately.

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**Q58 Lord O'Neill of Clackmannan:** I have a small question to Tim Thomas. In the survey that you have conducted, obviously British Aerospace and Rolls-Royce would have problems, but they would be fairly minor by comparison to the small and medium enterprises which are the bulk of your membership. When you give us the information, could you give us a breakdown by size of company? Obviously the problems facing the smaller employer that might be world-class but just does not have the HR resource on board should be brought out, because people get very complacent about big numbers, but the wee numbers, the small numbers, are in some ways just as significant. If we could get that, it would probably help your case and ours.

**Tim Thomas:** I can certainly supply that. We can cut the data in any way you would like us to cut it, and we can do that. Just to make a remark, which hopefully is helpful, we will have larger members who, like one of your last witnesses from GSK, will say that they get thousands of applications. We have large companies that do. That is not to say they find the process in any way straightforward or easy. Equally, I can think of one household-name member, one of the UK's quality brands, which has many hundreds of employees, but still finds navigating the immigration system costly, painful and expensive.

To pick up a point from your previous evidence session, the impression that they have from navigating the system and the inspections is one again of guilty until proven innocent. As an employer, they continually have to justify and show that they have followed the correct process. The comment that was given by the inspector at one of their recent inspections was actually, "We'll be back", which perhaps did not set an overall positive tone to the encounter.

**Q59 Lord Dixon-Smith:** It is quite clear to me, I hope, optimistically, that both universities and employers actually have a very mutual common interest in this whole subject and yet, to a certain extent, it is being talked about as though the two are separate. I wonder if somebody could explain to me—I have heard a lot so far—whether there is a difference or not, whether I am completely erroneous in my assumption or whether indeed you do in fact work closely together, which it seems to me is what you must do. When we heard of an employer finding four months at the end of a course not sufficient time to register a student, if they had not started on that six months earlier, something is seriously astray, in my thinking.

**Professor Atkinson:** They are waiting to see what degree the person is going to get. For example, if you are graduating with an MSc—

**Lord Dixon-Smith:** I can understand them wanting to know what the result is before they take the final decision. What I cannot understand is why they do not actually start work on the problem so that it goes very smoothly.

**Tim Thomas:** That is because of the actual process of applying for a certificate of sponsorship and then the visa. You actually need the individual; you need to know who it is you are applying for the visa for. You can potentially do some preparatory work and get a certificate of sponsorship from UKBA, although we know from our members that actually they have difficulty with that part of the process to begin with. Once they are in the process of having a number of certificates of sponsorship, they need the individual to apply for the visa.



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When we speak to our members, the point to be made is that it is the processing time. The last time I looked, which was some time ago, the UKBA was having difficulty, shall I say, in meeting their KPIs on processing times. Of course, if it takes anything more than four months then that creates a difficulty with our current regulatory structure. That is not to say that employers are not engaging, but the complexity, cost and speed at which the system operates is such that it is extremely challenging to meet that sort of time period.

**Q60 Lord Rees of Ludlow:** I have a question to Professor Atkinson and Sir Peter really. Even if we did not have these problems with immigration, do you think we in the UK are going to have a harder and harder problem staying competitive, because obviously some of these countries like China will have their own university, so there would be less value added in coming here, more mainland European universities using English as a medium of instruction, and there are other effects. Do you think that, even in the best scenario, we will have a problem maintaining our standing as a preferred destination?

**Professor Atkinson:** A degree from the UK still carries, and I think for at least a period will continue to carry, weight. Peter used the word “prize”. It is a prize, and that is partly because of the way we do our education. Our education is challenging and rigorous. That is not to say it is not in other countries, but it has a particular reputation for its challenge, its rigour and, indeed, its hands-on practical nature in engineering.

We need to set that against the backdrop of the fact that people value an education in English. We are competing with, in particular, Australia, Canada and the US. We have a very established system of being able to deliver intense and rigorous education over the one-year period. If you compare with Europe, where mostly their MScs are two years—

**Lord Rees of Ludlow:** Bologna requires two years.

**Professor Atkinson:** Yes. I think that there is a reputation and a value around a UK MSc, and we should actually be very proud of that. We are out there competing in a global marketplace, and we are being set alongside somewhere like Australia, where their post-study work visa regulations are—Peter, you had the figures on the conditions in the different countries.

**Professor Gregson:** In the different countries, Australia is particularly interesting because, if my memory serves me right, the post-study work period is up to four years, depending upon what level of visa you start from. The presumption there is of a two-year master's programme and then you have the 24 months, which our system used to have, for post-study work. I think that is right.

Just to follow on from Helen's comments, Lord Rees, absolutely remaining competitive in this space is very challenging, particularly with the growing numbers of English-taught programmes from premier institutions in mainland Europe, right on our doorstep, let alone the United States and on other continents. That is very important. I would not want to underestimate the point that it is the competitive nature of our offering academically, together with the welcoming nature of society as a whole, that students will bear in mind when they and their families are making a decision as to whether or not to come to the UK or anywhere else. Helen talked earlier on about the nature of the family decision and the model for postgraduate education. That is why I used my comments earlier on to refer to competitiveness and welcoming nature.

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**Q61 Lord Rees of Ludlow:** If I just follow up, is the perception of UK manufacturing, as compared to that in other countries, an element as well for engineering students?

**Professor Gregson:** Just to link that question to that of Lord Dixon-Smith, let me reassure this Committee that universities work very closely with companies and businesses. We find it easier to work with larger companies than with the supply chain and SMEs. That has been well covered in the Lambert Review, Andrew Witty's review and so on. That is not to say that we do not work very hard to try to make up for that deficit but, as Tim has highlighted, the resource of the HR departments and what-have-you just is not there in some of the small to medium-sized enterprises.

To come back to the question of Lord Rees, at the end of the day, it is not only the competitive and international nature of the work that UK universities do, but also the international reach of global corporates based in the UK. For example, a company that I know particularly well is Rolls-Royce, which has worked very closely with universities for many years. However, that as a company now has 60% of its workforce based overseas. They are recruiting internationally from the best students, so students from Cranfield are up against students from the National University of Singapore, who have done a master's in English, modelled very much on the high-quality experience that we have a deserved reputation for, but which is very difficult to maintain in today's competitive world.

**Professor Atkinson:** I should comment further that yesterday I had a conversation with someone who represents the Automotive Council, and he said that the current situation with the Immigration Rules around getting visas was really acting as a brake on growth. The manufacturing sector we know is resurgent, but actually it was a real problem. You might like to ask for some evidence from the Automotive Council.

**The Chairman:** Thank you; that is very helpful.

**Tim Thomas:** We certainly have evidence, which we could supply, of the difficulty in recruiting skills. We held our national conference a week ago today. The overwhelming feeling from the 500 manufacturers there was that, yes, a lack of skills was a drag on growth; it was preventing them from expanding. That was an overwhelming view from the floor, from manufacturers of all shapes and sizes, of all sectors and all parts of the UK.

**Q62 Earl of Selborne:** I want to first of all just summarise what I have heard from you in your very helpful evidence about what has happened, since the demise of the previous post-study work route, and then to ask ultimately where we go from here. Let me just make sure that I have got it entirely clear. I think Professor Atkinson was very helpful in explaining how, particularly at the master's level, those who were taking out loans with a family decision will find it difficult to repay the loan. You added the complication of constantly changing rules, an unwelcoming perception, the cost of visas, the complication of getting visas and the complication of the system as a whole requiring specialist advice. All this amounts to quite a succession of self-inflicted problems in what is becoming an ever more competitive market. The tier 2 visa, which has replaced it, clearly has many problems, and it is not fulfilling the role that the previous post-study work route fulfilled. Given that we do not want to go on changing the system and want to have a bit of constancy in the proceedings, what are you suggesting we should recommend?

**Professor Atkinson:** My position would be that we should look at reinstating post-study work, particularly given that other countries have done precisely that. We know that

Engineering Employers' Federation (EEF) the manufacturers' organisation, Professor Sir Peter Gregson, Cranfield University, and Professor Helen Atkinson CBE, FEng, University of Leicester – Oral evidence (QQ 53-63)

Australia, for example, changed its position quite radically and is now benefiting. We are in this global international marketplace, so my first recommendation would be that we should look seriously at reinstating post-study work for two years.

The second question that it would be interesting for you to explore is still the question of whether students should count as part of the migration numbers. We also know that other countries do not or have moved to taking them out of the migration numbers. That is a very serious issue for consideration.

**Professor Gregson:** I would agree with those two points. The third that I would add would be, although it might seem small in numeric terms, the impact of the cost of a visa, ATAS, and the healthcare levy mean that we have moved to being at the expensive end of the range, more than twice as much as many other countries. I think there should be some look at the cost associated with the country.

**The Chairman:** Can I just clarify? When you say “twice as much”, twice as much as what?

**Professor Gregson:** The UK is very close to the United States at the moment. That is before the introduction of a healthcare levy. That is more than twice as much as most European countries – for example an English-speaking postgraduate course in the Technical University of Delft. These costs are small compared to the overall fees. Nevertheless, at the point of entry it represents a severe hurdle.

Regarding the process part of my three Ps. Let us make sure we also meet the targets, so that students know what the reply time is, so that they can make the arrangements accordingly to be able to meet the entry needs of our programmes. To maintain a competitive high-quality programme, we will not accept people beyond a particular date, because they come in and they disrupt the programme. It is very important that we have clarity and consistency of process, so that we can make sure, with our partners overseas, that students apply in a timely way. A lot of the perception part would then be enhanced.

**Q63 Earl of Selborne:** I wonder whether I could ask Mr Thomas, from the perspective of the employer, what it is that the employer would most hope to see that would make a scheme rather more employer-friendly.

**Tim Thomas:** First of all, a period of time. 24 months is far more workable from an employer's perspective. Let us use what we know worked in the past—the post-study work route—and then let us please make it work properly this time. For example, as an employer, you can subscribe to a premium service with UKBA. I believe it costs £20,000. The experience of our members that do not subscribe to the premium service is poor. Quite a large medium-sized member recently told me that, actually, they were unable to speak to anyone over the telephone at UKBA at all. It was simply a question of leaving an answer-phone message and then waiting for an e-mail by way of response. They again were up against deadlines to recruit someone. It is not just UKBA deadlines or regulatory deadlines; there are internal commercial deadlines. Many companies are recruiting people for a purpose, a project or a period, and they want that person in post, and then there could be a bit of internal training or a period of familiarisation. It is not just the process of getting past the UKBA; there are internal commercial issues.

What the Government could do is work with what we have, which is the Migration Advisory Committee. MAC produces Shortage Occupation Lists, and they look at the labour market

Engineering Employers' Federation (EEF) the manufacturers' organisation, Professor Sir Peter Gregson, Cranfield University, and Professor Helen Atkinson CBE, FREng, University of Leicester – Oral evidence (QQ 53-63)

and see what is in short supply. About half the occupations on the current list are engineering occupations. Perhaps therefore, if we tailor our system to what we need, and MAC is doing that work anyway, then we could say, “Actually, if we need more engineering graduates, perhaps we need a slightly different system, rather than just having four months to recruit those graduates.” Those are two or three key ways we could use what we have, but overarching we need to make our current system work from the client/customer perspective much better.

**The Chairman:** I would like to thank the witnesses very much indeed for your responses to our questions. Tim, you agreed to follow up with some details on the cost to employers of obtaining the tier 2 visa. Also, I was very interested, Sir Peter, in your last set of comments in response to Lord Selborne about the relative costs to the student applying for a visa compared to other European countries and the United States. If you have any comparable data to hand, it would be useful for us to have that. That would become part of the published evidence. In due course, you will receive a transcript of the session to make editorial corrections. In the mean time, I would like to thank you all very much indeed for a very helpful session.

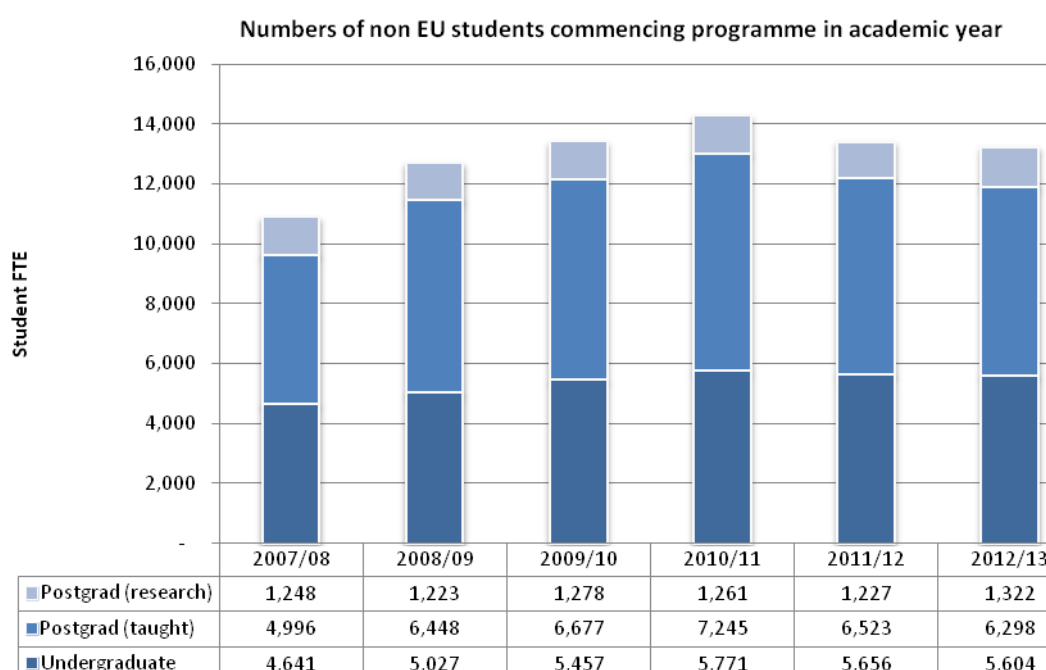
## Engineering Professors' Council – Written evidence

*Author: Professor Simon Hodgson, President*

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<sup>35</sup>).



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<sup>36</sup> 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

<sup>35</sup> 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

<sup>36</sup> 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.

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.

***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-session 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 competitiveness 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 sufficient 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<sup>37</sup> 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 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*

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<sup>37</sup> 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).

## **Faculty of Engineering and Physical Sciences, the University of Manchester – Written evidence**

The Committee has invited written submissions on the following questions.

- 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?

1.0 We have seen an increase in numbers of students from some countries but a drop in numbers of students from other countries. We would expect some countries to grow (e.g. China) as their economies grow but some countries (e.g. India and Nigeria) appear to have been particularly affected by the policy reforms.

1.1 Across all our STEM subjects, when comparing our 2010/11 to 2012/13 student numbers, we have seen a 61% decrease in PG Taught students from India (notably 56% decrease in Computer Science and a 61% decrease for Engineering), a 38% decrease in PG Taught students from Nigeria (notably 59% decrease for Engineering) and a 56% decrease in PG Taught students from Pakistan (notably 67% decrease for Engineering).

- 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?

2.0 The volume of enquiries and applications we have received in some countries has dropped (e.g. India). In other countries, we have applications but these have not converted into students despite us making offers to them.

2.1 We are still seeing the drop in both applications and acceptances from prospective students from key countries in the current admissions cycle.

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

3.0 The changes to Post Study Work opportunities have had an effect on some countries (e.g. India). The replacement of it via Tier 2 has only ameliorated for it to a small extent as many companies are unwilling to undertake the additional bureaucracy and many “graduate-level” positions do not pay above the minimum starting salary level. In many cases, the attraction of the UK was the potential to apply for post study work (the majority of students did not actually take up the opportunity).

[See also points on employment, section 8, below]

3.1 This potentially also has an impact on the graduates’ views of the UK and their desire to work with the UK in years to come when they are in influential positions.

3.2 ATAS (the Advanced Technology Approval Scheme) also causes problems for us –

partly because the scheme is not adequately supported [whilst ATAS was introduced some time ago in recent years it has expanded to include some UG and PGT courses although staffing levels do not appear to have kept pace]. There are currently around 4 staff processing all the approvals (although this has been down to 2-3 at times) which leads to significant delays. Whilst it is understandable why the Scheme exists it could both be resourced better and/or worked in a more targeted way.

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

4.0 We are particularly concerned with some of the currently proposed legislation notably

4.1 NHS Surcharge: A positive message to students used to be that access to healthcare/the NHS was free (it seems welcoming) and we wonder how much it will cost to actually take the proposed fee per year. As the fee is per person this will particularly affect students with families who are often studying PG Research degrees which help produce research output for the UK.

4.2 Landlords (checks): Arguably this may not affect that many of our students as many are in University halls (or similar) but the group it may particularly affect will be those with families (i.e. especially PG Research students) as they rely more on private properties.

4.3 It is particularly challenging when changes happen part way through an admissions cycle (as has happened in the past e.g. with English language conditions) and we would ask that time for implementation is built into any future plans for change.

- 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?

5.0 It is hard to measure the precise impact as potential students do not always provide feedback on why they have not come to us or gone elsewhere.

5.1 There could be better data sharing from the Home Office (UKBA that was) in terms of visa refusals and reasons thereof.

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

6.0 Yes in some countries and the breadth of countries that send students to the UK is important not only in providing diversity to universities but in terms of being able to attract the best students from all over the world (many of whom will continue to act as ambassadors for the UK in years to come).

- Do higher education institutions and the Government have effective mechanisms in place

for communicating the rules arising from immigration policy to prospective international students?

7.0 Information is relatively easy to access in principle but is often not written in either friendly/welcoming terms or in easy to follow language (noting that many students will not have English as their first language – although will have competency around at least 6.0-6.5 IELTS when applying).

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

8.0 Our work with STEM students and employers suggests that they do still face significant barriers with UK recruiters. The biggest barriers for international STEM students to gain work in the UK appear to be:

- a) Graduate employers being unwilling to sponsor Tier 2 work visas for international applicants
- b) Graduate employers not being on the register of sponsors
- c) The minimum salary for Tier 2 visa sponsorship is prohibitive.

8.1 The Engineering, Science & Technology Fair hosted by The University of Manchester each year welcomes over 80 exhibitors with graduate positions. However, at the 2013 fair, 15 of the organisations were not on the Sponsor Register, despite being major recruiting organisations. Another 9 were not willing to sponsor Tier 2 visas for international graduates despite being on the register and the salaries meeting minimum requirements. Many of the reasons supplied for not sponsoring focused upon ignorance of the legislation and an unwillingness to consider sponsoring. From this sample we see that almost one third of STEM employers were not able or willing to sponsor.

8.2 One major international telecoms provider who attends a number of our fairs had recruited and selected an international IT student from The University of Manchester during the Summer 2013 and offered them a job. However, on discovering that the student needed a visa, the offer was retracted, as the firm would not consider sponsorship. Even after a discussion with us and the offer to introduce them to immigration advice from a solicitor, free of charge, the offer was not reinstated. There were no issues with minimum salaries or being on the sponsor register.

8.3 Similarly, The Teach First scheme – getting teachers into the profession are very keen to get more STEM graduates to apply to their programmes and struggle to fill a number of their STEM positions each year. However, despite an increasing number of schools being on the sponsor register in the UK and minimum salaries being met, the programme will not consider international applicants who need visa sponsorship.

8.4 A number of major organisations (popular with our international students for graduate opportunities) do not consider sponsoring international students for work visas in the UK. This is a significant source of frustration for our students.

- 8.5 Turning to salaries, during the year 1<sup>st</sup> February, 2013 to 1<sup>st</sup> February, 2014 the Careers Service at The University of Manchester advertised over 2000 graduate jobs specifically targeting STEM students. Reviewing the salaries of the 900 opportunities, where salary was stated, the minimum salaries for Tier 2 visa sponsorship were met in only 55% of cases.
- 8.6 Within this analysis there were over 200 IT graduate positions advertised that did not meet the minimum salary level for Tier 2 sponsorship.
- 8.7 These 900 posts analysed did not include the additional “graduate internship” positions that are popular with students for gaining graduate experience and popular with smaller employers as a route to graduate hiring. In the majority of cases, the absolute minimum salary of £20,300 was not met with graduate internships.
- 8.8 The Tier 5 route for gaining experience is unpopular with both our students and employers – owing to the fact that the recruiters would typically seek to regain the talent in the UK following Tier 5 (and the investment in training) and they have not heard of this option. There are also the costs of an intermediary Sponsor to pay, the bureaucracy this involves and the willingness of the employer to be involved / pay for these schemes. We are not familiar with any students actually taking a Tier 5 experience at Manchester.
- 8.9 Overall, the transfer to Tier 2 (or Tier 5) does not work well compared to the previous SEGS/PSW schemes for UG and PGT graduates.
- Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?
- 9.0 Probably not quite yet for taught masters although this is partly due to the significant number of Chinese students at present. We still have some UG students on taught masters although the numbers of these have dropped in recent years (due to other issues). It is fair to say that without international students we would find it difficult to run many of our taught masters courses.
- 9.1 The issues are slightly different for PhD students although we would like to be able to recruit more international STEM PhD students (as well as more UK STEM PhD students) to increase our research output for the UK. In some cases, PhD students are put off coming to the UK (e.g. ATAS processes) or not able to attain their visa in a timely manner (this is not always the fault of the visa issuing authorities as sometimes it can be the scholarship awarding body’s timing for announcing the granting of the scholarship).
- 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?

10.0 If we had a reduction in international student numbers then we would need to reduce our expenditure and this would effectively need to come through reducing staff or facilities (including equipment or buildings), especially relating to the STEM subjects which are expensive to run at a high quality. The UK is already reasonably highly priced, in terms of fees, compared to most competitors so would only be able to increase fees to a small extent. The fees for UK students are fixed so these cannot be increased to cover the true costs in the STEM subjects. Other sources of income for universities (e.g. research) are also challenging to increase (and in most cases would mean taking away the income from other UK universities).

- General comment

11.0 By contrast during the same time, the USA and Australia (our two biggest competitors) as well as Canada (continuing to emerge as a competitor) have liberalised and increased their international student numbers.

*20 February 2014*

Professor Anthony Finkelstein, University College London, Professor Mick Fuller, Plymouth University and Professor Scott MacGregor, University of Strathclyde – Oral evidence (QQ 64-81)

**Professor Anthony Finkelstein, University College London, Professor Mick Fuller, Plymouth University and Professor Scott MacGregor, University of Strathclyde – Oral evidence (QQ 64-81)**

[Transcript to be found under Professor Scott MacGregor, University of Strathclyde](#)

Professor Mick Fuller, Plymouth University, Professor Scott MacGregor, University of Strathclyde and Professor Anthony Finkelstein, University College London – Oral evidence (QQ 64-81)

**Professor Mick Fuller, Plymouth University, Professor Scott MacGregor, University of Strathclyde and Professor Anthony Finkelstein, University College London – Oral evidence (QQ 64-81)**

[Transcript to be found under Professor Scott MacGregor, University of Strathclyde](#)



Professor Erol Gelenbe, UK Computing Research Committee, Sir Andrew Witty, University of Nottingham and Professor Steve West, Universities UK's Health Policy Network – Oral evidence (QQ 42-52)

**Professor Erol Gelenbe, UK Computing Research Committee, Sir Andrew Witty, University of Nottingham and Professor Steve West, Universities UK's Health Policy Network – Oral evidence (QQ 42-52)**

[Transcript to be found under Sir Andrew Witty, University of Nottingham](#)

## **Government – Written evidence**

*This memorandum has been prepared by:  
Home Office; and  
Department for Business, Innovation and Skills (BIS).*

### **Introduction**

1. The Government welcomes the opportunity to provide evidence into the Committee's inquiry into International Science, Technology, Engineering and Mathematics students following the report of July 2012 into Higher Education in STEM subjects.
2. As part of this, it is helpful to provide the context over why it was originally necessary to make changes to the immigration policy on international students. Under the system this Government inherited there was evidence of that system being abused. An example of the scale of the problem is the findings of the National Audit Office who reported that up to 50,000 international students (for the purposes of this submission when we refer to international students, we mean non-EU students) may have come to work, not study, in 2009/10. To put this into context, this is nearly a quarter of the students who came to the UK in 2009/10.
3. Home Office research from 2010 found that 26% of international students at private colleges were potentially non-compliant with immigration control, compared with up to 2% of those at universities.
4. That is why the system needed reform and we believe that the Government has struck the balance between having a visa regime that is effective in eliminating abuse and one that works for legitimate students. Striking that balance does, however, mean some necessary tightening up on some areas of the system and this is what we have done since the new system was introduced in 2010.
5. Through a number of reforms to our student visa system, we have cut abuse whilst ensuring that we continue to attract talented international students. These changes to the system were entirely necessary to eliminate non-genuine students coming here and to remove those providers who were not offering genuine and high quality education. We believe that these changes have also helped protect the reputation of the UK's education sector by removing non-genuine providers from the system.
6. However these changes were explicitly designed to protect the attractiveness of our world-class universities to international students, including benefiting students and researchers in STEM subjects. We believe the current student visa offer is a good one. Those with the right qualifications, sufficient funds to cover their fees and maintenance costs and a good level of English are welcomed to the UK to study.

7. As we set out in the coalition mid-term report, there is no limit on the number of genuine students who can come and study in the UK and we have no intention to introduce one.

8. On top of this, we deliberately ensured that the system awards universities a number of privileges. They have flexibility on language testing, and their students are able to work part time during term-time, and full time in the holidays. We allow post-graduates on longer courses to bring dependants, and PhD students and those studying the following STEM subjects: architecture; medicine; dentistry; veterinary medicine and science are exempted from the time limit on study.

9. However, we recognise that we must keep our system under review in order to make sure that our offer to international students stacks up against the offer that our competitors are making to potential students,

**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?**

10. BIS officials provided the committee with a number of tables during the oral evidence session on Tuesday 4<sup>th</sup> February which set out the percentage changes in numbers of students by subject over the last few years. BIS analysts also committed to providing additional tables broken down by country, which have been sent separately to the Committee.

11. The international student market is highly competitive, with increasing numbers of countries involved. A number of misleading claims have been made and publicised about UK policy changes, not least by our competitors. However, the evidence over the last two years of the overall increase in applications to universities from international students demonstrates that the UK remains attractive to international students, including STEM students.

12. Nevertheless, while the Higher Education Statistics Agency (HESA) statistics for 2011/12 showed there was an increase of 3% in the number of international student entrants studying a non-STEM subject, it did also show a fall of 8% in the total number of international student entrants studying a STEM subject.

13. Most recently, the latest Higher Education Statistics Agency (HESA) statistics for the academic year 2012/13, published on 16 January 2014, shows there was a further slight fall (-2%) in the total number of international student entrants studying a STEM subject.

14. Nevertheless, we believe that the overall increase in international students suggests this is not intrinsically linked to changes in immigration policy, but one of the changing profile of students coming to the UK. Over the last two years there has been a fall in Indian students, who historically are more likely to study STEM subjects, coming to the UK.

15. Most recently, the figures show that the number of first year Indian STEM students has fallen 28%, but we believe that this should be considered in the context of the dramatic

increases we previously experienced. There are also other factors to be considered outside of immigration policy, such as the decline in the strength of the rupee. The Indian student market has been quite volatile for a number of years, for example, in one year between 2008 and 2009 the number of Indian students admitted to the UK doubled from 30,800 to 61,200. There were also decreases in numbers of Indian students going to the USA and Australia (2010/11 to 2012/13).

16. By contrast the UK has seen strong growth from students from other countries studying STEM subjects, with China rising from 11,655 to 12,430 (+7%), Malaysia from 3,625 to 3,650 (+1%) and Hong Kong from 1,740 to 2,095 (+20%). Alongside this a more detailed breakdown of the 2012/13 figures shows that there is a more complicated picture on figures, undergraduate entrants fell by 4%, taught postgraduate entrants fell by 3% but the number of research postgraduate entrants increased by 6%.

17. All this would suggest that the fall in international STEM students is not driven simply by changes in the immigration policy. The government considers that any impact of the visa regime on the UK's attractiveness to international students has been marginal, and overall nothing like as significant as some of the more alarmist predictions had feared.

18. We do accept that there is more still to be done, particularly in countries such as India, to tackle misperceptions that the UK is unwelcoming of international students, and to reinforce the message that the UK remains open and welcoming to those who want to come here to study and who meet the rules. As set out below, work is under way to address this.

**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?**

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

19. We do not believe that the evidence shows an adverse impact from changes to the immigration rules. However we do believe that the largest impact on international students, STEM or otherwise, has come not from any actual policies, but from the way these policies have been misrepresented. Policies intended to reduce fraud and illegal migration, which are aims that we believe have wide support nationally and internationally, have been described in terms that suggest the UK no longer welcomes legitimate international students, and wants to limit their numbers.

20. Despite this there is evidence that the brightest and best students are still applying in numbers. The most recent Home Office statistics, published on 27 February, show that UK universities remain extremely attractive to international students with the number of visa applications from students sponsored by universities rising by 7% in 2013 and for students sponsored by the Russell Group of universities this rose by 11%.

21. In addition the latest HESA statistics show that in 2012/13 the number of international students at our universities has remained steady, with a slight overall drop of

1%, but which again should be considered in light of factors outside immigration policy – for example the number of EU students has also fallen by 5%.

22. These figures show that there is nothing intrinsic in the immigration policy that is putting off high quality international STEM students choosing to study in the UK. The UK remains extremely attractive to international students, matching or outperforming all our major competitors aside from the US, but we are not complacent. We are determined to tackle any misunderstanding or misrepresentations of our immigration policy, and have a programme of work under way which is covered in more detail below.

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

23. The Bill contains measures to reform the removals and appeals system, making it easier and quicker to remove those with no right to be here; end the abuse of Article 8 – the right to respect for private and family life; and prevent illegal immigrants accessing public services or renting property. This will make the UK's removals and appeals processes simpler and more effective.

24. We have been careful to ensure that measures in the Bill regulating migrants' access to services do not disproportionately affect students. The Bill, as drafted, excludes student halls of residence from the requirement for private landlords to check their tenants' immigration status. We will use secondary legislation to set a lower rate for student temporary migrants of £150 per year for the new immigration health surcharge and will also apply this lower rate to their dependants.

25. We believe this is extremely competitive compared to what students have to pay for private medical insurance in competitor nations, such as the USA and Australia. We do not believe these measures will have any adverse impact on genuine international students studying STEM subjects at our universities.

**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?**

26. We regularly review the impact of our policies through monitoring the available data and frequent meetings with key stakeholders and partners.

27. The Home Office publishes quarterly data on visa statistics which includes student visas. This covers the whole of Tier 4 and has been improved to now give information on university sponsored applications which increased by 7% in 2013. The statistical agency HESA collects and publishes data on the Higher Education Sector to meet the needs of policy makers and the sector, including data about the number of non-EEA students at UK Higher Education Institutions (HEIs), by level of course, subject matter and by institution.

28. Alongside officials meet with representatives of the university sector on a regular basis and there are a number of fora established for government and the international

education sector to work together on issues. This includes the Joint Education Taskforce, and regular meetings with the HE sector and others on a new 'co-regulation' approach. We do not believe that our necessary immigration reforms, when properly understood and communicated, are damaging to the attractiveness of our world class universities to legitimate international students or international STEM students in particular.

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

29. The UK remains extremely attractive to international students and international STEM students. A comparison of higher education statistics with those of other countries shows that the UK continues to attract a good share of the international market. It remains, by some way ahead of other countries, the second most popular destination in the world for university study, behind the USA.

30. The UK also remains extremely attractive to key markets. For example, between 2010/11 and 2012/13 the number of Chinese students at UK higher education institutions increased by 24.5%, compared to a 1% increase in Australia. Whilst the number of Indian students at UK higher education institutions fell by 43%, Australia also experienced a similar decrease (42%).

31. It is true there was a slight drop in international students coming to the UK from 2010/11 to 2012/13, though student numbers in Australia and France have also fallen at a similar rate over the same period. Canada has recently experienced relatively strong growth, but this must be placed in the context that it attracted only a third of the number of international students who came to the UK in 2012/13.

32. It has been reported that in December, the British Council published a survey of more than 10,000 young people across India. This can be found at <http://www.britishcouncil.org/organisation/press/young-indians-continue-favour-uk-universities>. For most Indians, high quality courses and institutions remained by far the greatest pull factor for the students when choosing whether to study at home or abroad. The UK was the most favoured destination, chosen by 21% of respondents. Young Indians put British universities first for taught postgraduate courses. The UK was also top, with the United States, as a quality destination for research doctorates and undergraduate degrees.

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

33. The Government has taken every opportunity to communicate the message that the UK is open for genuine international students and there is no cap. The Prime Minister has promoted this message during a number of overseas visits. However, we would agree that more work needs to be done on this, given that the offer has been misrepresented, and therefore misunderstood, not least by competitors who wish to attract students away from the UK.

34. The British Council is a key partner in delivery of the UK's International Education Strategy and their global network and online resources are some of the main ways the UK provides information about all aspects of study in the UK, including the rules arising from immigration policy. Through their global network, the British Council runs education exhibitions to help recruit international students to the UK and raise brand awareness. The exhibitions use the 'Education is GREAT' campaign material to highlight the breadth of the UK's offer. The British Council works with the majority of UK universities and a growing number of further education colleges and schools to run over 120 education exhibitions, in more than 50 countries annually, attracting over 250,000 visitors a year. As part of the education exhibitions, the UKVI run visa seminars to help prospective students through the visa application process.

35. The Education is GREAT campaign is used to promote the UK's offer. Under the Education is GREAT campaign, the British Council has run seminars for education agents and outreach events in tier 2 cities across India, where the UK's visa application process is explained. The outreach events include seminars at higher education institutions (HEIs) and colleges for prospective students and networking events for teachers, officials and education agents, to promote the UK as a destination for study.

36. As highlighted in our International Education Strategy, the Education UK website has been refreshed. It will be easier for students to search for courses, institutions and scholarships and to find reputable agents in their own country. This online resource, managed by the British Council, receives over 2.2 million visitors each year and provides practical advice to prospective students, covering issues such as pre-departure briefings, visas, scholarships, accommodation, travel and other areas of concerns. The British Council manage the EuraxessUK website, on behalf of BIS, which provides information to international researchers wanting to come to the UK, including funding and visas ([www.euraxess.org.uk](http://www.euraxess.org.uk)).

37. UK universities make information on immigration available on their websites, through emailing prospective students and via social media. The majority of HEIs have specialist advisory services aimed at international students to provide support and guidance before and after students arrive to study in the UK. In 2012, the Quality Assurance Agency published guidance on international students studying in the UK (<http://www.qaa.ac.uk/publications/informationandguidance/documents/international-students.pdf>). This guidance, which is accepted as good practice, assists UK higher education providers in managing international students' experiences.

38. As autonomous bodies, UK HEIs will have their own mechanisms in place to promote and communicate the UK's offer, including the visa application process. For example, Sheffield University created the film 'Applying to Study in the UK, Two Real Stories', with input from the Home Office, which portrays positive experiences of the visa application process to encourage Indian students to study in the UK, (<http://www.weareinternational.org.uk>). This video appears on the Home Office website and the British Council regularly use the film at their education exhibitions and is making the film available to education agents in India. It was shown at the British Council's November

2013 education exhibitions (in Mumbai, Bengaluru, Kolkata and New Delhi) and the February 2014 exhibitions (in Chennai, Hyderabad, Pune and New Delhi).

39. Universities UK (UUK) works on behalf of higher education providers and has been trying to overcome negative messages via a series of press conferences to the foreign media. Over the past two and a half years, there have been five such conferences and UUK has invited London-based correspondents from a wide range of media outlets and countries via the Foreign Press Association and Press Trust of India. UUK has used these press briefings to communicate that the UK remains open for business, that there are still post-study work opportunities and that the UK higher education system remains one of the best in the world.

40. Alongside this we have sought to improve the customer experience. In 2013 UK Visas and Immigration (UKVI) was established with the rationale to create an organisation with a culture of customer service and since then has looked at the messaging and the information provided to potential students. UKVI are working closely with the education sector to encourage genuine international students to study in the UK by communicating more effectively, sharing messaging with partners, contributing to their partners' newsletters and agreeing the accuracy of their materials. UKVI are also actively looking at and responding to customer feedback to improve the service provided, for example, launching new customer service standards for in country applications.

41. UK VI has also worked closely with the Foreign and Commonwealth Office, the Department for Business Innovation and Skills, UK Trade and Industry, the British Council, universities and sector organisations to promote the UK as an attractive destination for prospective international students, for example improving online applications through gov.uk and working with the University of Sheffield to produce a series of video clips in China and India to show the visa application process.

42. UKVI works closely with the Joint Education Taskforce to communicate upcoming changes to the Immigration Rules that can be communicated to their members. Information is also provided to the sector through targeted partner mailings and UKVI will ensure that the information for students on the website is up to date and transparent.

43. Despite all these steps we will keep this issue under review to consider if there is more we can do to communicate to prospective international students about the attractiveness of the UK as a place to study, including challenging myths about our immigration policy.

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

44. Despite some of the myths, the UK remains open to international STEM graduates who wish to stay and work in the UK. Any graduate who obtains a graduate level job with a sponsor company who has a Tier 2 licence and who secures a job paying £20,300 per year or more can stay by transferring to a Tier 2 work visa. There is no limit on the number of these places, and they are exempt from the cap on economic migrants. It is also easy for businesses to become a Tier 2 sponsor if they are not already – they can apply online in 30



minutes. We do recognise, however, the importance of highly skilled, highly trained international graduates to STEM employers and we are in conversation with businesses from those sectors on how we might improve the system further.

45. In April 2012 we also introduced the Graduate Entrepreneur scheme, the first in the world of its kind, so that graduates who wish to stay to develop a business idea can do so. In April 2013 we provided further flexibility for talented graduates to stay and work, introducing the Doctorate Extension Scheme to allow completing PhD students to stay in the UK for an additional year to work, gain experience in their chosen field or set up as an entrepreneur, again with no limit on numbers. There is also provision for graduates who wish to undertake a period of professional training relating to their degree, before pursuing a career overseas, to do this by switching into an appropriate Tier 5 scheme, where there is no salary requirement (other than the national minimum wage).

46. In addition to enabling international students to remain in the UK after their studies the immigration reforms have explicitly taken account of the needs of scientists and researchers. The Exceptional Talent route introduced in 2011 caters for world leaders, and those with exceptional promise, in science, engineering, humanities and the arts. Exceptional scientists wishing to come to the UK need to obtain an endorsement from one of the Competent Bodies, which include the Royal Society and the Royal Academy of Engineering. Once here, the terms of the visa are generous: holders are not tied to a specific employer, have no specific salary requirements and they can qualify for settlement after five years. From April, the route will be expanded to include technology experts, with the Tech City UK coming on board as a new Competent Body.

**Are immigration policies and rules jeopardising the provision of particular STEM Taught masters or other postgraduate courses at your institution?**

**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?**

The two questions above do not require a Government response.

*11 March 2014*

**Government: Department for Business, Innovation and Skills (BIS) – Oral evidence (QQ 1-15)**

*Evidence Session No. 1*

*Heard in Public*

*Questions 1 - 15*

**TUESDAY 4 FEBRUARY 2014**

**Members present**

Lord Krebs (Chairman)  
Lord Dixon-Smith  
Baroness Hilton of Eggardon  
Baroness Manningham-Buller  
Lord O'Neill of Clackmannan  
Lord Patel  
Baroness Perry of Southwark  
Lord Peston  
Lord Rees of Ludlow  
Earl of Selborne  
Baroness Sharp of Guildford  
Lord Willis of Knaresborough

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**Examination of Witnesses**

**Martin Williams**, Director, Office for Life Sciences, International Education Industrial Strategy, Department for Business, Innovation and Skills, **Dr Joanne Hodges**, Deputy Director, Science and Society, Department for Business, Innovation and Skills, and **Andrew Ray**, Deputy Director, Higher Education Analysis, Department for Business, Innovation and Skills

**Q1 The Chairman:** Good morning. I would like to welcome our panel of witnesses, from the Department for Business, Innovation and Skills, in the first stage of this new inquiry that we are carrying out into international STEM students and the impacts of changes in immigration policy to the recruitment into UK universities.

I would like to invite our witnesses very briefly to introduce themselves for the record. In so doing, I thank BIS officials for coming to give evidence to us. I note that we had also hoped that Home Office officials would come to give evidence, but Home Office officials were unable to do so. They refused to come and give evidence in spite of repeated requests. So we are very grateful to you for giving us your time and experience. Without further ado, I would like to invite Dr Hodges to introduce herself.

**Dr Hodges:** Dr Joanne Hodges, Head of the Science and Society Team in BIS, which carries responsibility for policy on student and academic visas and migration.

**Martin Williams:** Good morning. I am Martin Williams. I am a director in BIS responsible for the international education strategy.

**Andrew Ray:** I am Andrew Ray, and I lead on higher education analysis in BIS.

**Q2 The Chairman:** Thank you very much. Perhaps I could kick off with an opening question. We are aware that you have sent us some very helpful tables based on HESA data—Higher Education Statistics Agency—but we hope very much that you can talk us through the tables. What we would like to understand, as a factual basis for our further investigation, is how the numbers and demographics of international STEM students in the UK have changed since the introduction of policy reforms on immigration earlier in this Parliament. Clearly you have laid out the information there. We would also like to know if you have done any analysis or have any way of analysing what the cause/effect relationships are. There are some quite substantial changes, which you will no doubt explain to us. We would be very interested to hear your interpretation of why those changes have taken place since 2010-11. Who would like to kick off?

**Martin Williams:** Let me invite Mr Ray to start off with taking you through the tables, since he supplied them.

**Andrew Ray:** Thank you. Perhaps I should say at the outset that we are very happy to supply more detail to the Committee than we have done here, and to answer any specific questions that you might have in the evidence that we provide later on. What we have done is to look at Higher Education Statistics Agency data up to 2012-13, which is the most recent year for which we have full data. That data was published in January. I have provided two sets of four tables. The first set relates to subjects studied. The second set relates to the country of origin of the students. I focused here on entrants but we could have provided enrolments so it is the flow of students into higher education as opposed to the stock each year.

If you could look at table 1 to begin with, that is the total number of entrants and gives you the main picture. At the bottom we show the total entrants. You can see that in 2009-10 and 2010-11 there were increases. Since then—the last two years, which are the years that have corresponded to the changes in policy on migration—the numbers have been broadly flat. What we have given you here, which has not been published, is the breakdown for STEM and non-STEM, those two broad categories. You can see that, particularly in 2011-12, there was a slightly larger reduction in STEM than in non-STEM. There was another reduction in 2012-13, but the difference between STEM and non-STEM was less pronounced then. I realise that STEM and non-STEM are very broad categories. Even the sub-categories of this table are quite broad, so obviously we could go further into these numbers.

The figures vary according to these subjects. The first three in the table are those where we have the most students coming from abroad in STEM; that is, engineering and technology, computer science and subjects allied to medicine. Those saw quite significant falls in 2011-12. The computer science and subjects allied to medicine figures also fell in 2012-13, but the engineering and technology figure did not fall. So that is quite interesting. Not all of these figures fell, so I particularly draw your attention to mathematical sciences, which showed quite healthy increases in those two years—9% and 7% increases.

**The Chairman:** I do not want to interrupt your flow, because it is extremely helpful to us, but could I check—just to be clear in our minds—that these figures are the percentage changes year on year? So, taking computer science, there was a 25% drop in 2011-12, followed by a further 11% on top of that in 2012-13?

**Andrew Ray:** That is right, in the number of entrants going in.

**The Chairman:** So, to get the total drop over two years-plus since the policy was changed, you have to do a cumulative percentage drop of those two numbers?

**Andrew Ray:** That is right. So you compare the third column to the last column of the numbers and you can see the reductions there.

**The Chairman:** Yes.

**Andrew Ray:** Those are the main points on the entrants. I think what I would say is that the undergraduate figures, which are in table 2, and the taught postgraduate figures, which are in table 3, show a broadly similar pattern to what we have just looked at.

The research postgraduates in table 4 show a different pattern. Perhaps it is worth focusing on research postgraduates in table 4. Obviously the numbers here are generally smaller, so there is likely to be more variation in these numbers. But, overall, the figures for international students have been rising over the period both for STEM and non-STEM. However, the increases are actually greater for the STEM subjects. So I think that there is a different story here for research postgraduates than for undergraduates and taught postgraduate courses.

Perhaps I may go on and start to bring in the country analysis. In tables 5, 6, 7 and 8 we have the equivalent tables showing you the STEM and non-STEM entrants by country. These are the 10 countries that send most students to the UK. I think the findings here are quite well known in some ways already. We have seen quite significant growth in China and Hong Kong in particular, while in India and Pakistan in particular we have seen some reductions. Those reductions have been throughout STEM and non-STEM. If you think about Indian students, the subjects that Indian students are most likely to take are the three subjects that I referred to at the top of the STEM table 4. 15% of Indian students coming here take engineering and technology courses. In computer science courses, 12% of students take those; and subjects allied to medicine, 11% of Indian students take those. So what I think you are seeing here is an India effect that is particularly affecting those subjects within the STEM results.

**The Chairman:** Thank you very much. That was extremely helpful and very clear.

**Q3 Lord Rees of Ludlow:** Can you say how big these figures are compared to the EU number of students—a rough ratio?

**Andrew Ray:** We have 172,000 entrants here who are international students. The EU figures are around 50,000. I do not have the exact numbers here but that is the scale of it.

**Lord Rees of Ludlow:** These figures are much more than the EU?

**Andrew Ray:** Yes.

**The Chairman:** Martin Williams, you wanted to—

**Martin Williams:** I was going to say that we could of course supply you with the EU figures if that was helpful—the published HESA data.

**The Chairman:** Yes, that would be helpful. Do any of the rest of you wish to add to what Andrew has told us?

**Martin Williams:** No, I think the picture that the data gives you is fairly clear and Andrew has summarised it nicely. One could go on to speculate, of course, on the causes for that, which you are interested in, Chairman, but perhaps I should let you interrogate the figures first before getting on to that.

**The Chairman:** Yes.

**Q4 Lord Willis of Knaresborough:** First of all, I thank you enormously for this. It is incredibly helpful to have that level of data and we appreciate it. One area that I am particularly interested in is computer science, because we have seen a significant drop in UK students doing computer science. Yet we have seen quite an extraordinary drop in the number of students, not only at undergraduate level but at master's and postgraduate level as well. Is it possible to let us know which countries those students are coming from? The cross-reference between subjects and what they study is not on these tables. Do you have that information?

**Andrew Ray:** I do not have it here today but certainly we can do that.

**Lord Willis of Knaresborough:** It would be useful to have that cross-reference between subjects.

**Andrew Ray:** Would it be for computer science or should we do it for all subjects?

**The Chairman:** I do not want to give you too much work to do but it would be useful to have this matrix of country by subject. You sort of alluded to it by saying that you thought that there was largely an India effect here, because a significant proportion of Indian students were studying computer science. It would be useful to have it teased out in a little more detail across the subjects.

**Andrew Ray:** Okay.

**Baroness Sharp of Guildford:** This is the Indian subcontinent, because there is also Pakistan. Looking at postgraduates, in 2011-12 there was a 30% drop from Saudi Arabia, but then an 8% increase in postgraduates in 2012-13. Whereas, if you look at the postgraduate research, perhaps that 37% drop was passed through, because in 2011-12 postgraduate research was 5% down from Saudi Arabia and then 21% down this last year.

**Q5 Baroness Perry of Southwark:** Do you have any information from the British Council officers or the embassies abroad as to where the students that we have "lost" are going instead—for example Canadian students, where we have had a drop, where are they going? Are they going down to the States? Indian students, are they going to America or Australia? Do we have any clue?

**Martin Williams:** Let me give you a general response and see if Dr Hodges wants to add to it. The first is that we cannot give you a definitive answer to that, I think. It is a counterfactual question really.

**Baroness Perry of Southwark:** No, I realise that, but I know the British Council do keep international flow figures, do they not?

**Martin Williams:** They do, although it is still quite difficult to assess. You would need to go back to the countries themselves to get their data and see how detailed it is broken down between the different countries to which they are sending students. Sorry, my words are getting muddled but you see what I mean. The countries that are importing the students would need to give us the data on where those students are coming from.

Anecdotally, there is certainly a tale that more students are seeking to go to America. As far as Indian students are concerned, America has always been their number one destination of choice. There was an indication of a slight fall in Indian students going to America in 2009-10 and 2010-11. It is not quite clear why. What we do know is that American universities are perhaps now recruiting internationally more aggressively, perhaps because of falls in domestic funding. We also know, of course, that flows of Indian students to Australia were considerably disrupted in 2008-09 and 2009-10, as a result of partly domestic policy in Australia, partly because of some well publicised and unfortunate cases of violence against Indian students in Australia. The Indian market does appear to be quite a volatile one, if I can put it like that. So I think that the number of Indian students going to Australia has been increasing, but it has been increasing from a temporary dip. Joanne, is there any more you want to say from the British Council point of view?

**Dr Hodges:** The information we have from the British Council is more about what we are currently doing to try to attract more Indian students to come to the UK, which will probably crop up later in this discussion. In terms of comparisons across the board, we tend to use the OECD Education at a Glance data, which comes out in September of each year. I think the latest version only goes as far as 2011-12.

**Andrew Ray:** 2010-11.

**Baroness Perry of Southwark:** I know that the British Council, in the days when I was doing the national job for education exports, used to produce very good figures of where our top competitors were, with some kind of rebuttal things about, “Okay, maybe it is cheaper in Australia, but these are the things we can offer”. It would be helpful to know what sales job we are doing to try to discourage young STEM people from going to other countries rather than coming here.

**Lord Peston:** Could you clarify one thing for me? Are we talking, for want of a better expression, about genuine higher educational institutions? Perhaps you will remember that in the 1960s and 1970s this country was full of racketeers who invented spurious places which all tried to look—this is my economics connection—as if they were part of the LSE. We have largely wiped that out, have we not—so these are genuine institutions that we are talking about?

**Martin Williams:** This is an important point. HESA collects data on publicly funded higher education institutions. There will be some students who are coming to institutions here that do not receive public funding. They may be entirely reputable institutions or entirely reputable higher education institutions, but they will not be picked up in the HESA data. I think that is correct, is it not, Andrew?

**Andrew Ray:** That is right, yes—the University of Buckingham and publicly funded institutions.

**Baroness Perry of Southwark:** BPP, or something like that?

**Andrew Ray:** Those are not included at the moment.

**Lord O'Neill of Clackmannan:** Do you keep track of the expansion of higher education in, say, India? Has there been a significant expansion in terms of a supply of places, which might have meant that some of the students who could have come here and who are, say, financially on the margins, decided to stay in India?

**Martin Williams:** I think there are various questions here. I certainly do not have a good figure—and I am not sure if good figures exist—for higher education in India as a whole. It is a very, very big country and has a very wide range of institutions. I am not sure that data exists that I would feel happy offering to the Committee that said definitively, “This is the supply of places in India”, in the same way as one could for the United Kingdom.

What I would say is that, of course, if we talk about UK-India relations and, indeed, for other developed countries, the rise in transnational education in India has been considerable. It is possible to take a UK degree and many other degrees, in India without leaving India, and those numbers are increasing. As we pointed out in the International Education Strategy, more students are studying for UK higher education degrees outside the United Kingdom than inside it. There are more than 0.5 million. India is an attractive market for transnational education. I suspect that it will continue to be so and may well grow if, for example, the MOOC phenomenon—Massive Open Online Courses—takes off in a big way. There are some signs that India is the sort of country where it might.

**Q6 The Chairman:** Could I come back to where I think Lord O'Neill's question began to approach the matter, which is what inferences you draw about cause and effect relationships? Clearly, what we are interested in is the trends that switched between 2010-11 and 2011-12. As your table shows quite clearly with regard to India, there was a substantial change. While one correlation does not prove causation, it is tempting to infer that there might be something. I wonder if you would be prepared to offer us thoughts on why that might particularly apply to India. If indeed one speculates there is a link, why has it affected India more than China or some of the other countries in the table?

**Martin Williams:** Let me tentatively and cautiously see what I can say in response, Chairman. I think with India—just to put in some of the caveats first—the rupee, for example, has been rather low against the pound over this period, and that may have contributed to the costs of Indian students going to the United Kingdom. Of course other countries have been marketing themselves. I mentioned America. One could also mention that Singapore and Malaysia are seeking to become hubs in Southeast Asia to attract international students.

Having said that, I think it would probably be disingenuous to suggest that an impression has not been gained in India that something is happening in the UK that makes them less attracted to coming here, even though, as you are aware, there is no limit on the number of legitimate students who can come to the UK from India. If one were speculating, one might say—and there seems to be some evidence—that the post-study work arrangements as they previously were appeared to be quite attractive to Indian and Asian subcontinent students. Those arrangements might be less attractive or less important to Chinese students. This is pure speculation. I have no good research grounds for that, but you invited me to speculate and I felt I owed it to the Committee at least to give some speculation.

**The Chairman:** That is very helpful.

**Martin Williams:** Perhaps my colleagues would like to contribute.

**The Chairman:** We will come back to the post-study work issue a bit later. But likewise, if one looks at what is happening with China and Hong Kong, on the other hand, that looks relatively positive, in the sense that the numbers have gone up. But of course one has to ask: would they have gone up even further had there not been changes in the immigration policy? We know that China, with a rapidly growing middle class and rapidly rising wealth, is looking outwards in a way that it was not perhaps five or six years ago. I do not know whether there is any thought about how the trend in recruitment of Chinese students in this country, whether from the mainland or from Hong Kong, compares with what has happened in other competitor countries.

**Martin Williams:** I do not think I can offer any comment on that. The rise in Chinese students has been notable. I think that some universities—but here one would have to ask Universities UK and individual institutions—would be cautious about overexpansion and overdependence on any individual country, so they might want to draw a distinction between the number of students from any country that they could theoretically attract and the number of students that they wanted in any given year—some idea about controlled expansion. But again I am theorising; I have no real data. I am speculating on a counterfactual.

**Q7 Lord Dixon-Smith:** It is not going to be a red herring because one of the things that I have heard about—and I have certainly known about for quite a long time—is people living at home in foreign countries who, because of the ease of modern communication through computers, are studying at British institutions even though they might be living in Australia, for example. I wonder how you treat those in these figures, if you are able to pick them up at all. Perhaps you cannot. But I think that that is something that we are going to face as an increasingly common phenomenon.

**The Chairman:** It is an expansion of the point that Mr Williams raised about MOOCs.

**Martin Williams:** Yes. In terms of the actual content of the figures, I should perhaps ask Andrew to—

**Andrew Ray:** Mr Williams was talking earlier about transnational education, which is how we describe that. HESA do produce separate statistics on transnational education. So these figures that I am showing you do not include those. Those are students entering UK institutions.

**Lord Dixon-Smith:** Thank you. It would be interesting, if there is any information available in this field, if we could be supplied with it at some point.

**The Chairman:** Yes, if you have anything. I do not know how many UK universities, for example, have MOOC-type courses. I know some do.

**Martin Williams:** One says MOOC, but many things are covered by this label. From memory, there are about 20 UK institutions enrolled on the Open University FutureLearn platform, which is perhaps the best known UK MOOC. There are certainly two that I am aware of, and possibly more now, enrolled with Coursera, which is one of the major United States MOOCs. Of course most UK institutions—in fact the large majority—will offer some form of distance learning, so there is the capacity to study there without actually being in the country, whether or not that is via a MOOC or via a traditional online distance learning arrangement. You are then into quite difficult definitional questions about when is a MOOC not a MOOC. But as far as distance learning is concerned, as Mr Ray said, HESA collect the data. I suspect it



is a bit difficult to count in detail because there is such a wide variety, but we will certainly give you what we can.

**The Chairman:** If you could that would be helpful to us.

**Q8 Lord Willis of Knaresborough:** Perhaps we could move away from MOOCs for a short time; we were getting very excited there. For us to understand what is happening here we really have to know what the global picture is in terms of students who are studying away from their home countries. Is there any way, particularly with these top 10 or 12 countries, of getting a sense of how large the overseas population is in terms of students? Without having some global figures, it is very difficult to know what is happening. Can we get a handle on that?

**Martin Williams:** We could try, but I fear the handle we get might be slightly out of date. But Andrew will tell us what we can do.

**Andrew Ray:** Yes, we referred to it earlier—the OECD’s Education at a Glance collects these figures and they show the global share. The UK is second to the USA in terms of international students at 13%. The USA has 16.5% of the international student market from the countries that the OECD collects data from. You can look at a variety of countries and you can look at trends over time but the data only goes up to 2010-11, which is fine for looking at trends over the last decade. But if you are interested in these particular last two years, from the migration policy perspective, unfortunately we will have to wait until the summer to see the first year of that showing up in the data.

**Lord Willis of Knaresborough:** In terms of those countries where there is a significant decrease, particularly in STEM students—and this is from the Indian subcontinent in the main—do we not have good enough relations with, say, the Indian High Commission or the Pakistan High Commission to be able to get current figures? Surely they are interested, too, if in fact we are not being as attractive to their students, in actually seeing: (a) have the number of students increased; and (b) where are they actually going to?

**Andrew Ray:** Yes, I think we have some intelligence on this, but we have not put it all together in a kind of evaluation looking at the flows from these countries to the different competitors. We have piecemeal evidence but I do not think it gives you a complete picture.

**Dr Hodges:** Not consistently across the board. We have some data from UNESCO’s Institute of Statistics, which gives trends of Indian students for 2006 to 2011, which shows strong growth in students going to the United States. In 2006 their second destination of choice was Australia and the third was the United Kingdom. We actually overtook Australia in 2009, and in 2011 38,000 students came from India to the UK and 14,000 to Australia. But we do not have anything more up to date than that at this point.

We could speak to our network of science and innovation staff in embassies and High Commissions abroad and see if they can come up with some more up-to-date data. We can ask that question.

**Lord Willis of Knaresborough:** It would be very useful if you could, because clearly it is this last couple of years where we have seen this perceived impact on immigration policy, where we want to do that. That would be very helpful.

Can I just move on? In answer to recent parliamentary questions, it is clear that BIS feels that we are doing a pretty good job in attracting students. We have a good offer. We are

internationally competitive. We have some of the best institutions. We have no cap on numbers. So why do you think then that there is this perception that students do not want to come here particularly from those key countries?

**Martin Williams:** I think you are right. I think the Government would say—not just BIS—that it has a competitive offer based on the answers that Ministers provided you with. I think the Government would also say that there are parts of the Asian subcontinent where that offer is not being effectively communicated, for a number of reasons. First of all, of course, we are in a competitive market and if there are perceived difficulties within the UK these difficulties will get played back by the media in the countries concerned, in India. They will also get played back by Australian media, US universities. There are plenty of people who have an interest in saying the UK's offer is a poor one, just as perhaps UK universities might point out the downside in some of the other countries' offers and have done so in the past.

The Government is clear that it is seeking very hard to push, particularly in India, the message that we are open for business. The Prime Minister visited and made the points. My Secretary of State, and David Willetts, have visited and made these points. Mark Walport, the Government Chief Scientist, has visited and made these points. The British Council has quite an elaborate campaign at present, precisely to get the messages over in India to Indian students. Dr Hodges intends to say more about what they are doing.

Of course, students do have a choice. The offer is growing internationally—as I mentioned, the Singapores and the Malaysias of the world. It is certain that more and more countries are trying to attract international students. We would expect there to be some effect certainly on market share, even if the total cake was growing.

Perhaps you could say a little more about what the British Council is doing in India.

**Dr Hodges:** Of course. They are using the GREAT campaign as a basis. The campaign is around “Education is GREAT Britain”, and they are running exhibitions and seminars in various cities across India. Not just in Delhi, Bangalore or Chennai, the really big cities, but the smaller cities as well: Nagpur, Jamshedpur, and Chandigarh, holding seminars to invite people to come along and find out what the offer is.

In November they launched some GREAT scholarships for 370 Indian students to come to study in the UK, at a cost of £1 million a year. Both of these things have received a lot of press coverage in India. They have also produced a GREAT Career Guide for Indian students, setting out what their options are once they come to study in the UK and for staying on in the UK. So there has been quite a major programme of activity across India to promote the UK as a destination.

**Q9 Lord Willis of Knaresborough:** As a non-Government official, do you think that when in fact students in India and Pakistan are faced with, for instance, going to Canada and getting their medical treatment free, and now being told, “If you come to the UK you are going to have to pay upfront a premium for medical treatment”, that that sends a good message in terms of making it attractive for students to come?

**Martin Williams:** I think that all students primarily decide where they study on the basis of the course they want to go to, the institution they want to go to, and the country they want to go to. Considering the amount of costs that anyone who studies abroad has to incur, probably the medical cost question is subsidiary to the key one of: is this institution offering a course that I want at a quality that I want? I think that is the main driver as to where

students go. But of course all students will be persuaded by different things. It would be rash to say that no student would ever be influenced by medical costs, if I might say.

**Lord Willis of Knaresborough:** There is no doubt that, as a whole, BIS's central plan is to try to increase the UK's competitiveness. Higher education is a fundamental plank of that, not only in itself but also in terms of what it actually produces. As officials, I wonder whether you are worried that saying to students, "We are going to fingerprint you to make sure you are who you are" will send out a wrong message, and whether BIS is unhappy with that.

**Martin Williams:** I think BIS would want to project a favourable image of the UK and a favourable image of the many strengths of the UK offer as consistently as possible.

**Lord Willis of Knaresborough:** In other words, that is not helpful.

**Martin Williams:** No, I did not say that. I think that BIS would also clearly want—as the Government in general would want—to be sure that the students who were coming to the UK were legitimate students coming to study at legitimate institutes, because I think anything else would do damage to the UK's international brand image. I think that questions about whether a particular measure is or is not justified in the round would have to be addressed to my Ministers.

**Q10 Baroness Sharp of Guildford:** Following up on what you were saying, how far do you think universities in Hong Kong and Singapore have risen up the league tables very rapidly? Are they taking Indian and Pakistani students? Do we know whether that is so? As for the attraction of English for the Chinese, in India English is the language of higher education, so the attraction of coming to England to learn English is not really there for the Indian and Pakistani students in quite the same way as it is for the Chinese students. We retain that as an element of competitive advantage. But, as I said, both Singapore and Hong Kong have risen up the league tables very rapidly and I wonder whether they are attracting students from other parts of Southeast Asia

**Martin Williams:** I know Singapore is trying to. I do not have data about whether or not it is succeeding, but I would be surprised if it were not attracting some. As you say, they have high-quality universities and there are some obvious geographical advantages for some students. I know Malaysia has ambitions in that field. I could not tell you about Hong Kong. One could inquire. As a general principle, all universities all over the world—if they can—are interested in attracting international students. Clearly the money is of some significance but I think they all want to grow their research and the quality of their student experience, and internationalisation is an important part of that.

**Earl of Selborne:** It is very helpful to hear from Dr Hodges of the excellent work that the British Council in India is doing to promote entrants into higher education institutions in this country. I think a lot of us have a great respect for what the British Council is able to do in this respect, but could you tell us whether the resources available to the British Council over the last four years—which is what we are looking at here on the annual changes—for this sort of endeavour in India have increased or decreased?

**Dr Hodges:** I am afraid I do not have the answer to that question, but we could certainly provide it in written evidence.

**Earl of Selborne:** That would be very helpful.

**The Chairman:** Before I turn to Baroness Sharp again, I would like to go back to the very beginning to the first table that you introduced. One of the points you made is that—if you go to the very bottom—since 2011-12 the numbers have been roughly flatlining. It went from 174, 173 to 171. What has happened is there has been a decrease in STEM from 58 to 52, compensated by a slight increase in non-STEM. Mr Ray, I think I heard you say earlier on that you thought this was largely an Indian subcontinent effect because those students chose to study STEM subjects. Is that the explanation as to why non-STEM seems to be doing quite well relative to STEM?

**Andrew Ray:** Yes, it is an important underlying cause because, as I said, the Indian students take the three at the top of the table, in terms of the numbers that are going into STEM subjects. Clearly you do have to look at these different subjects and think that they may have different causal factors going on, but for me looking at these numbers they are much less consistent than the figures on countries.

As we have explored, we do not have a precise causal link here. We have talked about things like exchange rates and other factors that may be affecting the Indian students. In terms of the numbers, I think that is a significant impact on these figures when you are looking at it for STEM and non-STEM as these big broad overarching categories. Clearly, within engineering and technology there are sub-categories that might be of interest that we have said we could look at.

**The Chairman:** Yes. Thank you.

**Q11 Baroness Sharp of Guildford:** On the changes in the tier 4 and tier 2, I wonder how far the changes in tier 2 have actually made it difficult for STEM students, in particular, to pursue employment in the UK after completing their studies in higher education. How important do you think international STEM students are for the shortage in various skill areas?

**Martin Williams:** There are two questions there so let me try to separate them out. In terms of the ability of the STEM students specifically to work afterwards, insofar as there is a differential effect—STEM and non-STEM—it should slightly benefit the STEM over the non-STEM. That is simply because, as you know, the rules for the right to work afterwards are that you are able to get a job with a salary of around £20,000. To give a very broad generalisation, STEM graduates on the whole attract higher salaries than non-STEM graduates. So if that is a criterion that is linked to salary then it will slightly favour the STEM over the non-STEM in very broad categories. Of course for the previous arrangements I have no data. I do not think anyone would have any data as to whether or not the STEM students were more likely to get higher paid jobs than lower paid jobs or that more jobs would have been open to them.

In terms of the general skill shortage of the country, personally I think the Government's position would be that we would never expect any student coming to the UK to remain afterwards. One never plans one's economy on the basis that a certain number would stay. Most students who come to the UK to study in due course wish to return to their own country. I think that has always been the case and that goes for most students who study abroad anywhere. They may not wish to go back absolutely immediately in an ideal world, but very few of them will see their long-term future as being in the UK. I am not sure it would be right for the Government to make its skills forecasts on the basis of an assumption

that a certain number of students will stay. We would not want to stop them staying if they meet the criteria, but I would not say that there are particular skills or occupations where we would say, “Of course we are dependent upon STEM students staying”. Clearly, there is a separate question about the rights of employers to bring international workers over, quite apart from students, to fill shortage occupations. I think that is a separate debate.

**Baroness Sharp of Guildford:** Yes. Is there any survey data that indicates how far the two-year extension, if you did a postgraduate degree, was one of the sources of attraction for foreign students to come to this country for postgraduate courses?

**Martin Williams:** There is a survey that UKCISA—UK Council for International Student Advice—did I think in 2011, which indicated some interest in the then post-study work regime as an attraction for students. These are students in the round, not particularly STEM students, and students may have been attracted for all manner of different reasons. Joanne, do you want to expand on that?

**Dr Hodges:** Yes. There have been a variety of surveys by different organisations in the last three years. In a UUK survey in 2011, 46% of respondents cited the possibility of post-study work as a factor they considered when applying to the UK. A NUS survey in 2012 cited that the highest scoring criterion for coming to the UK was the quality of education in the UK. The second was improving job prospects globally, but third was the possibility of working in the UK after their studies. Then there was a UKCISA survey in December 2011 where those respondents said that, of the recent changes to visa rules, the abolition of the post-study work route had had the greatest negative impact on students’ decisions to study in the UK.

**The Chairman:** Various Members of the Committee wish to come in.

**Q12 Baroness Manningham-Buller:** Mr Williams, I understood your point that no Government, in thinking about skills, should count on these students staying and that many will want to go home. But could one not put that round the other way and say that, with the substantial skills shortage in these areas, we should positively seek to get them to stay? That does not mean to say that you assume that they will be with you forever, but the figures that we have on the skills shortage in STEM subjects in the UK, which employers need, suggests to me that we should be much more positive in attracting them. Do you have a comment on that?

**Martin Williams:** I think the Government position would be that the offer of unlimited numbers staying, as many as you may attract at graduate salary levels, was an attraction to keep the people who were particularly competitive in the labour market. Also, of course the Government recently introduced provisions that allowed all PhDs, STEM and non-STEM, a year’s worth of looking around for a graduate level job. Effectively, a PSW—Post-Study Work—regime for PhDs. There is of course the exceptional talent provision within the migration rules, where 1,000 places are reserved for MBA students.

There is certainly a recognition that the UK would wish to be attractive to students who wished to remain on graduation. Whether or not one could strike a different balance in the offer one made would be one that Ministers would have to decide upon.

**Lord Rees of Ludlow:** Just to follow up, the United States obviously does benefit from lots of its students that stay on, and I would have thought our health service would be in a bad way if we did not have people that stayed on. I noted a very impassioned op-ed by James Dyson in the *FT* yesterday, which you may have seen, where he was saying that we ought to give all

these people visas and encourage them to stay and otherwise we are losing out badly. Do you have any comment on that? There does seem to be a pressure to try to keep these people if we can.

**Martin Williams:** All I would say is that the Government has to balance the point you made: do we wish people to be available to fill skill vacancies? I think that is primarily an employment question. As for balancing that against the question of, “Does one want large numbers of international students on graduating to be taking lower paid jobs?”, it depends on what one is talking about, because if they are taking higher paid jobs, by definition they will benefit from the current arrangements. That is a question we could take different views on. I would have to defer, obviously, to Ministers to decide what the right balance is to strike in the national interest there.

**Q13 Lord Patel:** Dr Hodges partly answered the question when she described the survey results of why undergraduate and students wish to come to this country. But part of my question relates to what Lord Willis asked earlier on. The perception is that the immigration rules have affected students coming to institutes of higher education. The Secretary of State for BIS commented last night on the Chinese visa situation. In the seminars that you run in India, have you asked that question of students: why do you not come here and are the immigration rules affecting you at all?

**Dr Hodges:** I am afraid I do not have any detail of what the seminars actually cover, but I can certainly ask for more detail of that from our High Commission to provide you with that.

**Lord Patel:** Okay.

**Dr Hodges:** If I may, I would like to clarify a bit about what the alternative routes are for staying on to work after graduation, in addition to being able to transfer to a tier 2 visa. As Martin said, there is no limit on the number of students who can transfer to a tier 2 visa if they earn sufficient salary<sup>38</sup>. There is also the graduate entrepreneur route, which was introduced at the time that the initial changes were made. That had 1,000 places on it for anyone wanting to stay on and set up their own company. That route was doubled in size last year, with the addition of 1,000 places for MBA graduates who wanted to set up their own company. Then also, as Martin said, all completing PhD students can stay on to either find work or set up their own company. There is the provision under tier 5—the Government authorised exchange—for students to stay on to undertake either temporary employment or further training after their studies, as long as it is related to what they originally studied. So there is a range of routes and the perception is slightly out of step with the reality and there is a job of communication there.

**Martin Williams:** Thank you for correcting some of that. I slightly misled in my reference to exceptional talent.

**Lord Peston:** I got a bit lost. Can I give you a made-up example? An Indian student comes here, say, to Imperial College, London, and gets a very good MSC in computer science and knows that the teachers at Imperial would write very good references for him or her. Does that student have any right to get a job here? “Any right” is the term I am using.

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<sup>38</sup> and have a job offer from a licensed sponsor

**Martin Williams:** If they are offered a job<sup>39</sup> at a salary of above £20,300 they have the right to take that job and to get a tier 2 visa.

**Lord Peston:** There is no cap for that?

**Martin Williams:** No cap to that.

**Lord Peston:** No cap to that, so that we would then get the benefits of what we have taught them? They would be working in our economic system?

**Martin Williams:** Yes.

**Lord Peston:** Although, as you rightly said, on the whole they will want to go home in due course.

**Martin Williams:** Absolutely.

**Lord Peston:** Where I got lost is: are there equivalent people with similar descriptions who have no right?

**Martin Williams:** There is no one who has no right if they can get a job at the salary level. For that route, in theory, there are an infinite number of students who could remain if they got jobs at more than £20,300.

**Lord Peston:** If I interpreted that as saying that our system—whatever you argue about immigration generally—welcomes these people, would that be a correct inference on my part?

**Martin Williams:** Yes.

**Lord Peston:** It is Government policy to say, “If they want to stay in any of these subjects, and they can get a good enough job, of course we would like them to come and work in our economy”?

**Martin Williams:** Yes. That would be absolutely fair.

**Lord Peston:** You are absolutely certain that is the case?

**Martin Williams:** I am just looking at my colleagues to confirm. Yes, I think to be strictly certain you should confirm that with the Home Office, but I am as certain as I can be that that is the Government’s policy.

**Lord Peston:** My final question is: what is all the fuss about then? I am no supporter of the Government, so I like there to be a fuss if you know what I mean. But you are saying there are no grounds for any fuss.

**Martin Williams:** I am saying that there are certainly not as much grounds for fuss as some would say, certainly. Perhaps I should leave it at that.

**The Chairman:** Thank you.

**Q14 Lord Willis of Knaresborough:** Two brief points. I think Lady Manningham-Buller was absolutely right when she drew your attention to the fact that in key areas such as, for instance, UK engineering, we need twice as many graduates by 2020. Given the state of the UK economy, in terms of major engineering projects, there is no way our universities are going to produce that. So I wonder if there is any discussion in the department as to

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<sup>39</sup> by a licensed sponsor

whether, in fact, there needs to be a slight nuancing of this welcoming policy that Lord Peston has now got on the record, which is very laudable of him. Whether in fact it is going to be nuanced to say that, when students are applying to come to the UK or to do their degrees, particularly in key areas like engineering and computer science and medical science, in fact there is a very clear statement made that these people would be welcome then to stay on for a period of time that is not dependent on the salary. Perhaps I may tie that to my other question, that in 2011 the Government asked the Migration Advisory Committee to review this £20,000 salary and to look at competitive salaries. Did that ever report, and where does the figure of £20,300 come from? Given that we have had a recession over the last few years, is that a realistic figure for entry into the graduate market?

**Martin Williams:** Let me try to take the questions, perhaps in reverse order. On the Migration Advisory Committee I have to step back and say I think this is a question you would have to ask the Home Office Ministers. They are responsible for working with the Migration Advisory Committee and I think you should direct that question to them.

**Lord Willis of Knaresborough:** You apply their policy.

**Martin Williams:** The Government applies their policy but ultimately the Home Office decides the rules it sets for the awarding of visas. Visa policy is a matter for the Home Office. Whether or not the Government would regard it as right for someone to come in and study any discipline and then have the right to continue working in a pizza parlour, I just—

**Lord Willis of Knaresborough:** I do not think I said that. I am talking about key subjects in areas we have a desperate need for, which is in engineering where there is a clear need to double the work force by 2020, and computer science where we are desperately moving backwards in terms of that field. These are areas that BIS clearly say that, in order for us to be competitive as we move forward, we have to have these people. Do you put pressure on the Home Office to say, “We need to nuance the policy to say to students when they are applying, ‘This is a good place to come because if you get a good engineering or computer science degree you can have a job’”?

**Martin Williams:** We and the Home Office are united in the policy that I described earlier that, “If you secure a job at the right salary level”, which I will use as a shorthand for a good job, “then you are welcome to come. We will encourage you to come”. Perhaps I should just also mention the fact that clearly, if there is a need or demand in the economy for skills in a particular area, UK universities will be able to train the number of people they can train, whether or not those are international students or domestic students. We are seeking to grow and expand the capacity of UK universities to offer STEM degrees—and perhaps you will be hearing from the Higher Education Funding Council for England during the course of this inquiry. The Government has given more funding to HEFCE to support the growth of STEM degrees for all students, international and national—but clearly seeking to grow for the benefit of domestic students, because we do not wish, as previously said, to be dependent permanently on international students coming in and remaining.

**The Chairman:** One last question from Lord O’Neill.

**Q15 Lord O’Neill of Clackmannan:** There are two parts to it. First, could you give us information as to the impact on individual institutions of the drop in numbers? Obviously it will be more severe for some institutions than others, and perhaps the ones with the loudest voices have been making the biggest noises in respect of this. The other thing is that in terms



of engineering graduates, including postgraduates, a salary of £20,000 is derisory compared to what they are normally offered by recruiters. The kind of people who are going into the construction projects and that sort of thing will be starting between £35,000 and £40,000. The figure of £20,000 is comfortably low. I would have said that should not really be a problem, certainly for STEM students who have the necessary skill set that is attractive to employers. They will get paid a lot more than that.

**Martin Williams:** I would defer to your views on the second point. On the first point, in terms of impact on individual institutions, BIS do not collect that. We would look to the Higher Education Funding Council for England to collect that or Universities UK. All I would say there is that, clearly, we talk to universities from time to time. I was at a Russell Group gathering last week when I saw a number of Vice-Chancellors socially. I mentioned that I was coming to this Committee today and what we were talking about. None of them implied to me that this was at the top of their list of worries at present.

This is simply an impressionistic comment. So, as I say, you would need to ask HEFCE, whose function it really is to look at and work with individual universities.

**The Chairman:** We are very close to the end but I think Baroness Sharp had a question.

**Baroness Sharp of Guildford:** It is a follow-up on this. Again, you may not be in a position to answer. We are particularly concerned with the postgraduate training here, and how far the drop in the numbers of students might affect the viability of some of the postgraduate courses, and whether you are aware of any courses, particularly in the STEM area, that might be under threat as a result of the drop in numbers.

**Martin Williams:** No. We asked HEFCE—and we have for a number of years—to monitor the overall health of strategically important and vulnerable subjects in the UK universities. Again, it is probably to them that you should direct the question. I would expect routinely that any university is creating and abandoning courses all the time as part of a normal churn, and I am glad to say we do not sit in Whitehall and say, “You can or you cannot close course X or course Y” for any of 150-odd higher education institutions.

**The Chairman:** I would like to draw the session to a close and to thank all three of you very much indeed. It has been an immensely helpful session to us. You have provided a lot of very transparent and well articulated information. You have also kindly agreed to provide some follow-up information. The Committee clerk will be in touch to pursue that with you. But thank you. You have given us a very good start to this short inquiry. As you know, you will receive a transcript and you will be free to make minor editorial corrections and, in due course, you will see a copy of our report. So thank you very much indeed.

## Government – Supplementary written evidence

*Supplementary evidence provided by Department for Business, Innovation and Skills (BIS) following the oral evidence session on 4 February 2014*

### **1) Encouragement of international students, including STEM students, to choose a UK education.**

The British Council is a key partner in delivery of the UK's International Education Strategy and its global network, online resources, and its use of the GREAT campaign, are some of the main ways the UK encourages international students, including STEM students, to choose a UK education.

As highlighted in our International Education Strategy, the Education UK website ([www.educationuk.org](http://www.educationuk.org)) was refreshed last year. Through this website students can search for courses, institutions and scholarships and find reputable agents in their own country. This online resource, managed by the British Council, receives over 2.2 million visitors each year and provides practical advice to prospective students. Through EducationUK, the British Council is promoting the UK as a leader in research, creativity and innovation demonstrating the UK's strengths, and using exciting stories to bring this information to life. These stories look at how UK universities and colleges are breaking new ground and making discoveries that are shaping our society: <http://www.educationuk.org/global/sub/discover-create-innovate/>. These stories are also being communicated through the Knowledge is GREAT Facebook page, which the British Council manage on behalf of the GREAT team: <https://www.facebook.com/KnowledgeisGREATBritain>

The British Council promotes the creativity and innovation of UK science overseas, for example, through:

- Its science in schools programme in France, supported by the French Ministry of Education, which brings UK scientists into schools to deliver hands on workshops and demonstrations.
- Supporting scientists from UK universities to exhibit their work at the Thailand Science and Technology Fair, which attracts 1.2 million people, including prospective students.
- FameLab International, a global science communication competition, in partnership with Cheltenham Science Festival and national partners such as CERN. This is often televised and reaches an audience of millions, and acts to inspire and engage people in science ([www.famelab.org](http://www.famelab.org)).
- Its online webzine, cubed, which highlights UK breakthroughs in science and technology (<http://www.britishcouncil.org/cubed>)

The British Council support early career researchers, including PhD students, through the following activities:

- The EuraxessUK website, which the British Council manage on behalf of BIS, which provides information to international researchers wanting to come to the UK, including funding and visas ([www.euraxess.org.uk](http://www.euraxess.org.uk)).
- An early career researcher partnership programme, which focuses on building research collaboration in science and innovation between the UK and the world <http://www.britishcouncil.org/society/science/researcher-links>. The British Council also help to build the communication skills of international researchers through its Researcher Connect training.

More generally, through its global network, the British Council runs education exhibitions to help recruit international students, including STEM students, to the UK and raise brand awareness. The exhibitions use the 'GREAT' campaign material to highlight the breadth of the UK's offer. The British Council works with the majority of UK universities and a growing number of further education colleges and schools to run around 120 education exhibitions, in more than 50 countries annually, attracting over 250,000 visitors a year. UKVI run visa seminars at many of the major exhibitions to help prospective students through the visa application process.

The GREAT campaign is making a major contribution to the promotion of the UK as a destination for study. The British Council, working closely with the FCO network, will focus particularly on strengthening the UK's attractiveness as a destination for study in the high volume markets of China, India and the US. .

The British Council has provided the following examples of activity undertaken in India as part of the GREAT campaign, during 2013/2014. Activity includes: launching a major scholarship programme in partnership with UK HEIs, with 370 part-funded scholarships on offer for Indian students; launching a career guide which has been widely distributed to potential students; highlighting the types of high quality courses on offer in the UK and the careers they can lead to; initiating a digital marketing campaign that aims to identify 10,000 potential new leads (young Indians interested in studying overseas); putting in place professional PR expertise to help generate positive media coverage of UK as a destination for study (the campaign has had a media reach of 156m so far); and running seminars for education agents.

## **2) Destinations of students from the Indian subcontinent and elsewhere.**

HMG have a very good relationship with the Indian High Commission in London and engage regularly, including on student numbers coming to the UK and how we can encourage greater numbers. Posts do not have a breakdown of data by UK competitor.

Although there is a time lag, UNESCO is the source Government use for figures on the destinations of students from the Indian subcontinent and other countries. However, the British Council have provided the following more recent intelligence on Australia and the USA:

- Australia

(Data from the Australian Government - [https://aei.gov.au/research/International-Student-Data/Pages/InternationalStudentData2013.aspx#Pivot\\_Table](https://aei.gov.au/research/International-Student-Data/Pages/InternationalStudentData2013.aspx#Pivot_Table))

Overall international student enrolments in Australia suffered a decline from 2010 onwards. However, despite this drop, international post graduate research students in STEM subjects continued to rise to 2012 ([https://aei.gov.au/research/Research-Snapshots/Documents/STEM\\_2012.pdf](https://aei.gov.au/research/Research-Snapshots/Documents/STEM_2012.pdf))

Latest figures (up to October 2013) show that overall international enrolment numbers are increasing again, including increases in numbers from countries which are declining in number to the UK (India, Pakistan, Bangladesh, Sri Lanka, Philippines, Iran).

- USA

(Data from Institute of International Education, Open Doors 2013 Data - <http://www.iie.org/Research-and-Publications/Open-Doors/Data>)

International enrolments to the USA continue to grow with the current figure (2012/13) 819,644. Around 301,000 of these study STEM. International STEM students have increased each year since 2004/05 to 2012/13.

Looking at 2012/13 (for comparison with latest available UK figures), Indian students to USA did decline slightly (by 3.5%) to 96,754. In absolute terms the decline was smaller than the decline to the UK.

Around 36% of Indian students in the US are enrolled in engineering programmes.

### **3) Resources available to the British Council over the last four years for education marketing in India over the last 4 years.**

The British Council and FCO have provided the figures below for UK Government contributions for education marketing spend in India over the last four years. It should be noted that this period spans the conclusion of one campaign (the Prime Minister's Initiative - PMI), promoting the UK as a study destination for international students, and the launch of the GREAT campaign.

2010/11: £100k (PMI)

2011/12: Nil

2012/13: £1m (Jubilee scholarships - a one off scholarship programme funded by the GREAT campaign)

2013/14: £550k (GREAT campaign funding)

It should be noted that during this period the British Council also managed education exhibitions which UK education institutions paid to attend.

#### **4) "Education is GREAT Britain" seminars.**

Great seminars are focused on positive messages about studying in the UK for those who are considering their choices. Alongside high quality images for UK Higher Education, the 'Knowledge' pillar of the GREAT campaign includes a range of positive messages, including:

- International graduates of British universities significantly enhance their career prospects and earning potential. Study in the UK and enjoy the rewards.
- For world-class education and training, with 30 of the world's top 200 universities, choose the UK.

This campaign collateral is used in a variety of publications as well as on banners, posters and other marketing materials. Potential students are also interested in wider aspects of the UK experience, the campaign therefore draws on other 'pillars' of the campaign to show the attractiveness of the UK's culture, heritage and countryside. The GREAT campaign also draws on positive endorsements of international students who are currently studying in the UK or alumni of UK universities.

With regard to feedback about immigration rules affecting a students' decision to choose the UK for further study, the Inside India report (Inside India, a new status quo, British Council, December 2013) highlights that 19% of students consider ease of getting a visa as an important factor when selecting a study destination and 44% of students are deterred from selecting a study destination because of difficulty in getting a visa. Survey respondents chose the UK as the most popular destination (21%), followed by the United States (17%), suggesting that Indian students still view the UK as a desired study destination.

*4 March 2014*

**Table 1: Total Entrants by Subject from Non-EU Countries**

*Note: Data in all tables below from 2008/09 to 2012/13.*

*Data from 2002/03 to 2007/08 is provided on pages 175 onwards (below).*

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	2008/09	2009/10	2010/11	2011/12	2012/13
Engineering & technology	18,175	19,405	20,625	19,225	19,165
Computer science	10,285	10,590	10,165	7,630	6,765
Subjects allied to medicine	6,560	7,745	8,315	7,020	6,200
Biological sciences	4,355	4,550	5,005	5,150	5,140
Physical sciences	3,295	3,645	4,005	3,965	4,170
Architecture, building & planning	3,050	3,535	4,000	4,045	4,375
Medicine & dentistry	2,835	2,940	3,060	3,215	3,025
Mathematical sciences	2,120	2,515	2,610	2,850	3,050
Agriculture & related subjects	680	820	780	835	795
Veterinary science	155	205	250	285	220
<b>STEM</b>	<b>51,515</b>	<b>55,945</b>	<b>58,815</b>	<b>54,210</b>	<b>52,905</b>
Business & administrative studies	47,385	55,390	62,430	64,680	63,720
Social studies	11,510	12,465	13,795	14,695	14,885
Languages	8,955	11,580	11,230	11,140	10,000
Law	7,245	7,875	7,890	8,430	8,605
Creative arts & design	5,625	6,520	7,365	7,800	8,565
Education	4,550	4,340	4,435	3,940	4,270
Historical and philosophical studies	2,940	2,455	2,780	2,870	2,950
Mass communications and documentation	2,575	3,380	3,815	4,070	4,225
Combined	2,470	1,800	1,670	1,725	1,780
<b>Non-STEM</b>	<b>93,255</b>	<b>105,800</b>	<b>115,410</b>	<b>119,350</b>	<b>119,005</b>
<b>Total</b>	<b>144,770</b>	<b>161,745</b>	<b>174,225</b>	<b>173,560</b>	<b>171,910</b>

*All figures rounded to the nearest 5*

Note: Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 1: Total Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	<b>Annual Changes</b>			
	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
Engineering & technology	7%	6%	-7%	0%
Computer science	3%	-4%	-25%	-11%
Subjects allied to medicine	18%	7%	-16%	-12%
Biological sciences	4%	10%	3%	0%
Physical sciences	11%	10%	-1%	5%
Architecture, building & planning	16%	13%	1%	8%
Medicine & dentistry	4%	4%	5%	-6%
Mathematical sciences	19%	4%	9%	7%
Agriculture & related subjects	20%	-5%	7%	-5%
Veterinary science	33%	24%	12%	-22%
<b>STEM</b>	<b>9%</b>	<b>5%</b>	<b>-8%</b>	<b>-2%</b>
Business & administrative studies	17%	13%	4%	-1%
Social studies	8%	11%	7%	1%
Languages	29%	-3%	-1%	-10%
Law	9%	0%	7%	2%
Creative arts & design	16%	13%	6%	10%
Education	-5%	2%	-11%	8%
Historical and philosophical studies	-16%	13%	3%	3%
Mass communications and documentation	31%	13%	7%	4%
Combined	-27%	-7%	3%	3%
<b>Non-STEM</b>	<b>13%</b>	<b>9%</b>	<b>3%</b>	<b>0%</b>
<b>Total</b>	<b>12%</b>	<b>8%</b>	<b>0%</b>	<b>-1%</b>

**Table 2: Undergraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
Engineering & technology	7,145	7,785	8,375	8,085	8,115
Subjects allied to medicine	3,150	4,100	4,300	3,620	3,010
Computer science	2,735	3,095	3,290	2,765	2,210
Biological sciences	1,680	1,725	2,050	2,320	2,395
Mathematical sciences	1,250	1,505	1,380	1,435	1,590
Architecture, building & planning	1,195	1,375	1,530	1,480	1,680
Physical sciences	1,010	1,130	1,210	1,265	1,325
Medicine & dentistry	790	865	905	965	890
Agriculture & related subjects	175	205	215	235	225
Veterinary science	115	165	200	230	170
<b>STEM</b>	<b>19,250</b>	<b>21,955</b>	<b>23,460</b>	<b>22,400</b>	<b>21,610</b>
Business & administrative studies	15,535	18,075	21,525	23,715	23,365
Languages	6,510	8,945	8,265	7,715	6,930
Social studies	4,325	4,305	4,760	5,065	5,260
Creative arts & design	2,860	3,090	3,300	3,680	4,025
Law	2,855	2,960	3,015	3,500	3,710
Combined	2,410	1,705	1,585	1,670	1,730
Education	1,650	1,340	1,090	465	885
Historical and philosophical studies	1,115	720	880	960	880
Mass communications and documentation	885	1,085	1,155	1,240	1,245
<b>Non-STEM</b>	<b>38,150</b>	<b>42,230</b>	<b>45,570</b>	<b>48,010</b>	<b>48,025</b>
<b>Total</b>	<b>57,400</b>	<b>64,180</b>	<b>69,030</b>	<b>70,410</b>	<b>69,640</b>

*All figures rounded to the nearest 5*



**CONTINUED: Table 2: Undergraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
Engineering & technology	9%	8%	-3%	0%
Subjects allied to medicine	30%	5%	-16%	-17%
Computer science	13%	6%	-16%	-20%
Biological sciences	3%	19%	13%	3%
Mathematical sciences	20%	-8%	4%	11%
Architecture, building & planning	15%	11%	-3%	13%
Physical sciences	12%	7%	5%	5%
Medicine & dentistry	10%	4%	7%	-8%
Agriculture & related subjects	17%	4%	11%	-5%
Veterinary science	41%	22%	14%	-25%
<b>STEM</b>	<b>14%</b>	<b>7%</b>	<b>-5%</b>	<b>-4%</b>
Business & administrative studies	16%	19%	10%	-1%
Languages	37%	-8%	-7%	-10%
Social studies	0%	11%	6%	4%
Creative arts & design	8%	7%	11%	9%
Law	4%	2%	16%	6%
Combined	-29%	-7%	5%	4%
Education	-19%	-19%	-57%	89%
Historical and philosophical studies	-35%	22%	9%	-8%
Mass communications and documentation	23%	6%	7%	0%
<b>Non-STEM</b>	<b>11%</b>	<b>8%</b>	<b>5%</b>	<b>0%</b>
<b>Total</b>	<b>12%</b>	<b>8%</b>	<b>2%</b>	<b>-1%</b>

**Table 3: Taught Postgraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
Engineering & technology	9,265	9,815	10,340	9,255	8,980
Computer science	7,000	6,930	6,275	4,230	3,940
Subjects allied to medicine	2,935	3,160	3,545	2,855	2,565
Biological sciences	1,875	2,075	2,150	2,030	1,920
Architecture, building & planning	1,665	1,920	2,190	2,310	2,400
Medicine & dentistry	1,585	1,605	1,610	1,710	1,605
Physical sciences	1,540	1,740	1,975	1,780	1,935
Mathematical sciences	650	790	995	1,170	1,140
Agriculture & related subjects	425	515	450	475	470
Veterinary science	20	30	30	25	25
<b>STEM</b>	<b>26,955</b>	<b>28,580</b>	<b>29,560</b>	<b>25,835</b>	<b>24,970</b>
Business & administrative studies	31,085	36,510	40,025	40,010	39,385
Social studies	6,145	7,075	8,035	8,595	8,545
Law	4,070	4,630	4,555	4,595	4,630
Creative arts & design	2,550	3,200	3,825	3,915	4,295
Education	2,445	2,520	2,910	3,020	2,895
Languages	1,875	2,090	2,425	2,745	2,440
Mass communications and documentation	1,595	2,200	2,560	2,705	2,855
Historical and philosophical studies	1,175	1,140	1,270	1,315	1,420
Combined	55	90	75	55	50
<b>Non-STEM</b>	<b>50,995</b>	<b>59,460</b>	<b>65,670</b>	<b>66,955</b>	<b>66,515</b>
<b>Total</b>	<b>77,950</b>	<b>88,040</b>	<b>95,230</b>	<b>92,790</b>	<b>91,485</b>

*All figures rounded to the nearest 5*

**CONTINUED: Table 3: Taught Postgraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
Engineering & technology	6%	5%	-11%	-3%
Computer science	-1%	-9%	-33%	-7%
Subjects allied to medicine	8%	12%	-20%	-10%
Biological sciences	11%	4%	-6%	-5%
Architecture, building & planning	15%	14%	5%	4%
Medicine & dentistry	1%	0%	6%	-6%
Physical sciences	13%	13%	-10%	9%
Mathematical sciences	22%	26%	17%	-2%
Agriculture & related subjects	20%	-13%	6%	-1%
Veterinary science	32%	10%	-22%	-4%
<b>STEM</b>	<b>6%</b>	<b>3%</b>	<b>-13%</b>	<b>-3%</b>
Business & administrative studies	17%	10%	0%	-2%
Social studies	15%	14%	7%	-1%
Law	14%	-2%	1%	1%
Creative arts & design	26%	19%	2%	10%
Education	3%	15%	4%	-4%
Languages	12%	16%	13%	-11%
Mass communications and documentation	38%	16%	6%	6%
Historical and philosophical studies	-3%	11%	4%	8%
Combined	59%	-16%	-26%	-11%
<b>Non-STEM</b>	<b>17%</b>	<b>10%</b>	<b>2%</b>	<b>-1%</b>
<b>Total</b>	<b>13%</b>	<b>8%</b>	<b>-3%</b>	<b>-1%</b>

**Table 4: Research Postgraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
Engineering & technology	1,765	1,805	1,910	1,890	2,070
Biological sciences	800	750	800	805	825
Physical sciences	745	770	825	920	910
Computer science	550	560	595	630	615
Subjects allied to medicine	480	485	470	550	630
Medicine & dentistry	465	470	550	535	530
Mathematical sciences	220	220	235	245	315
Architecture, building & planning	190	240	275	250	300
Agriculture & related subjects	80	100	115	125	105
Veterinary science	15	10	20	30	25
<b>STEM</b>	<b>5,310</b>	<b>5,415</b>	<b>5,800</b>	<b>5,975</b>	<b>6,325</b>
Social studies	1,035	1,085	1,005	1,035	1,080
Business & administrative studies	760	805	880	960	970
Historical and philosophical studies	650	590	630	590	650
Languages	575	545	545	680	630
Education	455	480	435	455	495
Law	325	280	320	330	265
Creative arts & design	215	225	240	210	245
Mass communications and documentation	95	95	105	125	125
Combined	0	5	10	0	0
<b>Non-STEM</b>	<b>4,110</b>	<b>4,110</b>	<b>4,165</b>	<b>4,390</b>	<b>4,460</b>
<b>Total</b>	<b>9,420</b>	<b>9,525</b>	<b>9,960</b>	<b>10,365</b>	<b>10,785</b>

*All figures rounded to the nearest 5*

**CONTINUED: Table 4: Research Postgraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
Engineering & technology	2%	6%	-1%	10%
Biological sciences	-6%	7%	0%	3%
Physical sciences	4%	7%	12%	-1%
Computer science	2%	6%	6%	-3%
Subjects allied to medicine	1%	-3%	17%	15%
Medicine & dentistry	1%	17%	-2%	-1%
Mathematical sciences	2%	7%	3%	29%
Architecture, building & planning	26%	15%	-9%	19%
Agriculture & related subjects	25%	16%	6%	-17%
Veterinary science	-37%	119%	43%	-16%
<b>STEM</b>	<b>2%</b>	<b>7%</b>	<b>3%</b>	<b>6%</b>
Social studies	4%	-7%	3%	4%
Business & administrative studies	6%	9%	9%	1%
Historical and philosophical studies	-9%	7%	-6%	10%
Languages	-5%	0%	25%	-8%
Education	5%	-10%	5%	9%
Law	-13%	14%	4%	-21%
Creative arts & design	6%	5%	-13%	17%
Mass communications and documentation	2%	8%	22%	0%
Combined	-	-	-	-
<b>Non-STEM</b>	<b>0%</b>	<b>1%</b>	<b>5%</b>	<b>2%</b>
<b>Total</b>	<b>1%</b>	<b>5%</b>	<b>4%</b>	<b>4%</b>

**Table 5: Total Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	2008/09	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>					
- China	6,840	8,350	9,705	11,655	12,430
- India	11,790	11,050	11,295	7,030	5,080
- United States	1,575	1,730	1,895	2,065	2,090
- Nigeria	4,055	4,775	4,750	4,765	4,625
- Malaysia	3,255	3,310	3,330	3,625	3,650
- Hong Kong	1,375	1,375	1,560	1,740	2,095
- Saudi Arabia	1,515	2,485	3,035	2,205	2,035
- Thailand	660	760	810	905	890
- Pakistan	2,210	1,965	2,165	1,475	1,235
- Canada	860	945	990	960	880
- <b>All countries</b>	<b>51,515</b>	<b>55,945</b>	<b>58,815</b>	<b>54,210</b>	<b>52,905</b>
<i>Non-STEM:</i>					
- China	22,050	28,595	35,130	41,870	44,105
- India	11,255	12,075	12,690	9,310	7,200
- United States	7,325	7,520	7,755	8,035	8,005
- Nigeria	4,685	5,350	5,400	5,245	5,010
- Malaysia	3,120	3,970	3,935	4,180	4,400
- Hong Kong	2,895	2,960	3,070	3,580	4,210
- Saudi Arabia	1,885	3,195	3,135	2,055	1,965
- Thailand	2,115	2,655	3,040	3,165	3,060
- Pakistan	3,225	3,290	3,760	3,170	2,425
- Canada	2,065	1,980	2,070	2,190	2,175
- <b>All countries</b>	<b>93,255</b>	<b>105,800</b>	<b>115,410</b>	<b>119,350</b>	<b>119,005</b>
<i>All subjects:</i>					
- China	28,895	36,950	44,835	53,525	56,535
- India	23,045	23,125	23,985	16,335	12,280
- United States	8,900	9,250	9,650	10,100	10,090
- Nigeria	8,740	10,125	10,150	10,010	9,630
- Malaysia	6,370	7,275	7,260	7,805	8,045
- Hong Kong	4,265	4,340	4,635	5,325	6,305
- Saudi Arabia	3,400	5,680	6,175	4,265	4,000
- Thailand	2,775	3,415	3,845	4,075	3,945
- Pakistan	5,430	5,255	5,925	4,645	3,660
- Canada	2,925	2,925	3,060	3,145	3,055
- <b>All countries</b>	<b>144,770</b>	<b>161,745</b>	<b>174,225</b>	<b>173,560</b>	<b>171,910</b>

*All figures rounded to the nearest 5*

**CONTINUED: Table 5: Total Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>				
- China	22%	16%	20%	7%
- India	-6%	2%	-38%	-28%
- United States	10%	10%	9%	1%
- Nigeria	18%	-1%	0%	-3%
- Malaysia	2%	1%	9%	1%
- Hong Kong	0%	13%	11%	20%
- Saudi Arabia	64%	22%	-27%	-8%
- Thailand	15%	7%	12%	-2%
- Pakistan	-11%	10%	-32%	-16%
- Canada	9%	5%	-3%	-8%
- <b>All countries</b>	<b>9%</b>	<b>5%</b>	<b>-8%</b>	<b>-2%</b>
<i>Non-STEM:</i>				
- China	30%	23%	19%	5%
- India	7%	5%	-27%	-23%
- United States	3%	3%	4%	0%
- Nigeria	14%	1%	-3%	-5%
- Malaysia	27%	-1%	6%	5%
- Hong Kong	2%	4%	17%	18%
- Saudi Arabia	69%	-2%	-34%	-4%
- Thailand	25%	14%	4%	-3%
- Pakistan	2%	14%	-16%	-23%
- Canada	-4%	4%	6%	0%
- <b>All countries</b>	<b>13%</b>	<b>9%</b>	<b>3%</b>	<b>0%</b>
<i>All subjects:</i>				
- China	28%	21%	19%	6%
- India	0%	4%	-32%	-25%
- United States	4%	4%	5%	0%
- Nigeria	16%	0%	-1%	-4%
- Malaysia	14%	0%	8%	3%
- Hong Kong	2%	7%	15%	18%
- Saudi Arabia	67%	9%	-31%	-6%
- Thailand	23%	13%	6%	-3%
- Pakistan	-3%	13%	-22%	-21%
- Canada	0%	5%	3%	-3%
- <b>All countries</b>	<b>12%</b>	<b>8%</b>	<b>0%</b>	<b>-1%</b>

**Table 6: Undergraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	2008/09	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>					
- China	2,895	3,480	3,895	4,240	4,480
- India	1,540	1,895	2,650	1,885	1,485
- United States	650	675	680	840	725
- Nigeria	1,170	1,375	1,285	1,430	1,240
- Malaysia	2,270	2,495	2,555	2,755	2,595
- Hong Kong	1,005	990	1,165	1,360	1,700
- Saudi Arabia	580	855	1,265	910	790
- Thailand	155	195	185	245	275
- Pakistan	580	470	610	530	445
- Canada	345	455	405	385	320
<b>- All countries</b>	<b>19,250</b>	<b>21,955</b>	<b>23,460</b>	<b>22,400</b>	<b>21,610</b>
<i>Non-STEM:</i>					
- China	10,650	14,040	15,850	17,210	16,490
- India	1,890	2,040	2,570	2,050	1,805
- United States	3,225	2,700	2,800	2,975	3,155
- Nigeria	1,235	1,365	1,500	1,510	1,450
- Malaysia	2,225	3,085	3,060	3,175	3,305
- Hong Kong	2,170	2,065	2,285	2,750	3,370
- Saudi Arabia	1,065	1,615	1,345	880	780
- Thailand	375	445	485	475	535
- Pakistan	1,005	920	1,070	1,085	950
- Canada	610	600	680	800	820
<b>- All countries</b>	<b>38,150</b>	<b>42,230</b>	<b>45,570</b>	<b>48,010</b>	<b>48,025</b>
<i>All subjects:</i>					
- China	13,545	17,515	19,745	21,450	20,970
- India	3,430	3,935	5,220	3,935	3,295
- United States	3,875	3,375	3,475	3,815	3,880
- Nigeria	2,405	2,740	2,785	2,940	2,695
- Malaysia	4,495	5,580	5,615	5,925	5,900
- Hong Kong	3,175	3,060	3,450	4,110	5,070
- Saudi Arabia	1,645	2,470	2,610	1,790	1,575
- Thailand	530	640	670	715	805
- Pakistan	1,580	1,385	1,680	1,615	1,395
- Canada	960	1,050	1,080	1,185	1,140
<b>- All countries</b>	<b>57,400</b>	<b>64,180</b>	<b>69,030</b>	<b>70,410</b>	<b>69,640</b>

*All figures rounded to the nearest 5*



**CONTINUED: Table 6: Undergraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>				
- China	20%	12%	9%	6%
- India	23%	40%	-29%	-21%
- United States	4%	0%	24%	-14%
- Nigeria	17%	-7%	11%	-13%
- Malaysia	10%	2%	8%	-6%
- Hong Kong	-1%	18%	17%	25%
- Saudi Arabia	48%	48%	-28%	-13%
- Thailand	24%	-6%	33%	12%
- Pakistan	-19%	30%	-13%	-16%
- Canada	31%	-11%	-5%	-17%
- <b>All countries</b>	<b>14%</b>	<b>7%</b>	<b>-5%</b>	<b>-4%</b>
<i>Non-STEM:</i>				
- China	32%	13%	9%	-4%
- India	8%	26%	-20%	-12%
- United States	-16%	4%	6%	6%
- Nigeria	11%	10%	0%	-4%
- Malaysia	39%	-1%	4%	4%
- Hong Kong	-5%	11%	20%	23%
- Saudi Arabia	52%	-17%	-35%	-11%
- Thailand	19%	10%	-3%	13%
- Pakistan	-8%	17%	1%	-12%
- Canada	-2%	13%	18%	2%
- <b>All countries</b>	<b>11%</b>	<b>8%</b>	<b>5%</b>	<b>0%</b>
<i>All subjects:</i>				
- China	29%	13%	9%	-2%
- India	15%	33%	-25%	-16%
- United States	-13%	3%	10%	2%
- Nigeria	14%	2%	6%	-8%
- Malaysia	24%	1%	6%	0%
- Hong Kong	-4%	13%	19%	23%
- Saudi Arabia	50%	6%	-31%	-12%
- Thailand	21%	5%	7%	13%
- Pakistan	-12%	21%	-4%	-13%
- Canada	10%	3%	10%	-4%
- <b>All countries</b>	<b>12%</b>	<b>8%</b>	<b>2%</b>	<b>-1%</b>

**Table 7: Taught Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	2008/09	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>					
- China	3,070	3,880	4,710	6,160	6,630
- India	9,815	8,765	8,170	4,740	3,220
- United States	670	780	910	950	1,025
- Nigeria	2,705	3,175	3,120	2,930	2,905
- Malaysia	560	545	555	600	695
- Hong Kong	315	335	325	320	330
- Saudi Arabia	685	1,225	1,220	765	830
- Thailand	325	400	455	505	465
- Pakistan	1,350	1,250	1,410	785	635
- Canada	395	380	465	465	465
<b>- All countries</b>	<b>26,955</b>	<b>28,580</b>	<b>29,560</b>	<b>25,835</b>	<b>24,970</b>
<i>Non-STEM:</i>					
- China	11,045	14,190	18,890	24,235	27,150
- India	9,230	9,890	10,000	7,135	5,255
- United States	3,405	4,060	4,140	4,295	4,090
- Nigeria	3,345	3,870	3,745	3,520	3,320
- Malaysia	740	800	805	930	990
- Hong Kong	635	810	740	775	790
- Saudi Arabia	680	1,395	1,545	915	905
- Thailand	1,660	2,115	2,460	2,585	2,415
- Pakistan	2,100	2,245	2,600	1,965	1,360
- Canada	1,205	1,135	1,160	1,180	1,140
<b>- All countries</b>	<b>50,995</b>	<b>59,460</b>	<b>65,670</b>	<b>66,955</b>	<b>66,515</b>
<i>All subjects:</i>					
- China	14,110	18,070	23,600	30,395	33,780
- India	19,045	18,655	18,165	11,875	8,470
- United States	4,075	4,840	5,050	5,245	5,115
- Nigeria	6,050	7,045	6,865	6,450	6,225
- Malaysia	1,300	1,340	1,360	1,530	1,685
- Hong Kong	955	1,145	1,065	1,090	1,120
- Saudi Arabia	1,365	2,620	2,765	1,685	1,735
- Thailand	1,985	2,515	2,915	3,090	2,880
- Pakistan	3,445	3,495	4,005	2,750	1,995
- Canada	1,600	1,520	1,630	1,645	1,610
<b>- All countries</b>	<b>77,950</b>	<b>88,040</b>	<b>95,230</b>	<b>92,790</b>	<b>91,485</b>

*All figures rounded to the nearest 5*

**CONTINUED: Table 7: Taught Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>				
- China	26%	21%	31%	8%
- India	-11%	-7%	-42%	-32%
- United States	16%	17%	5%	8%
- Nigeria	17%	-2%	-6%	-1%
- Malaysia	-3%	2%	8%	15%
- Hong Kong	5%	-2%	-3%	3%
- Saudi Arabia	79%	0%	-37%	8%
- Thailand	23%	13%	12%	-8%
- Pakistan	-7%	12%	-44%	-19%
- Canada	-4%	22%	0%	0%
- <b>All countries</b>	<b>6%</b>	<b>3%</b>	<b>-13%</b>	<b>-3%</b>
<i>Non-STEM:</i>				
- China	28%	33%	28%	12%
- India	7%	1%	-29%	-26%
- United States	19%	2%	4%	-5%
- Nigeria	16%	-3%	-6%	-6%
- Malaysia	8%	1%	16%	6%
- Hong Kong	28%	-9%	5%	2%
- Saudi Arabia	105%	11%	-41%	-1%
- Thailand	27%	16%	5%	-7%
- Pakistan	7%	16%	-24%	-31%
- Canada	-6%	2%	1%	-3%
- <b>All countries</b>	<b>17%</b>	<b>10%</b>	<b>2%</b>	<b>-1%</b>
<i>All subjects:</i>				
- China	28%	31%	29%	11%
- India	-2%	-3%	-35%	-29%
- United States	19%	4%	4%	-2%
- Nigeria	16%	-3%	-6%	-4%
- Malaysia	3%	1%	13%	10%
- Hong Kong	20%	-7%	2%	3%
- Saudi Arabia	92%	6%	-39%	3%
- Thailand	27%	16%	6%	-7%
- Pakistan	1%	15%	-31%	-27%
- Canada	-5%	7%	1%	-2%
- <b>All countries</b>	<b>13%</b>	<b>8%</b>	<b>-3%</b>	<b>-1%</b>

**Table 8: Research Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	2008/09	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>					
- China	875	995	1,100	1,255	1,325
- India	435	390	475	405	375
- United States	250	270	310	275	340
- Nigeria	180	225	345	405	480
- Malaysia	420	270	215	270	360
- Hong Kong	50	50	70	60	65
- Saudi Arabia	250	410	555	530	415
- Thailand	180	160	170	155	150
- Pakistan	280	245	150	160	155
- Canada	120	110	120	105	95
<b>- All countries</b>	<b>5,310</b>	<b>5,415</b>	<b>5,800</b>	<b>5,975</b>	<b>6,325</b>
<i>Non-STEM:</i>					
- China	360	370	390	425	465
- India	135	145	125	125	140
- United States	700	760	815	765	755
- Nigeria	105	120	155	215	235
- Malaysia	155	85	70	80	105
- Hong Kong	85	85	50	60	50
- Saudi Arabia	140	180	245	260	275
- Thailand	85	95	90	110	110
- Pakistan	120	130	95	120	115
- Canada	250	250	230	210	215
<b>- All countries</b>	<b>4,110</b>	<b>4,110</b>	<b>4,165</b>	<b>4,390</b>	<b>4,460</b>
<i>All subjects:</i>					
- China	1,235	1,360	1,490	1,680	1,790
- India	570	535	595	530	515
- United States	950	1,030	1,125	1,040	1,095
- Nigeria	280	345	500	620	715
- Malaysia	575	355	285	350	465
- Hong Kong	140	135	115	120	120
- Saudi Arabia	390	585	795	790	695
- Thailand	260	255	265	265	260
- Pakistan	400	375	245	280	270
- Canada	365	355	350	315	310
<b>- All countries</b>	<b>9,420</b>	<b>9,525</b>	<b>9,960</b>	<b>10,365</b>	<b>10,785</b>

*All figures rounded to the nearest 5*

**CONTINUED: Table 8: Research Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	Annual Changes			
	2009/10	2010/11	2011/12	2012/13
<i>STEM:</i>				
- China	13%	11%	14%	5%
- India	-11%	22%	-14%	-8%
- United States	8%	13%	-11%	23%
- Nigeria	26%	52%	18%	19%
- Malaysia	-36%	-20%	25%	34%
- Hong Kong	2%	31%	-10%	7%
- Saudi Arabia	62%	36%	-5%	-21%
- Thailand	-9%	7%	-9%	-5%
- Pakistan	-13%	-38%	7%	-3%
- Canada	-9%	12%	-12%	-12%
- <b>All countries</b>	<b>2%</b>	<b>7%</b>	<b>3%</b>	<b>6%</b>
<i>Non-STEM:</i>				
- China	2%	6%	9%	10%
- India	10%	-17%	0%	13%
- United States	9%	8%	-6%	-1%
- Nigeria	15%	32%	40%	9%
- Malaysia	-45%	-17%	12%	31%
- Hong Kong	-5%	-41%	22%	-13%
- Saudi Arabia	27%	36%	8%	6%
- Thailand	15%	-5%	21%	0%
- Pakistan	6%	-28%	29%	-6%
- Canada	-1%	-8%	-8%	3%
- <b>All countries</b>	<b>0%</b>	<b>1%</b>	<b>5%</b>	<b>2%</b>
<i>All subjects:</i>				
- China	10%	10%	13%	6%
- India	-6%	11%	-11%	-3%
- United States	8%	9%	-8%	5%
- Nigeria	22%	45%	24%	15%
- Malaysia	-38%	-19%	22%	33%
- Hong Kong	-2%	-13%	3%	-2%
- Saudi Arabia	50%	36%	-1%	-12%
- Thailand	-2%	2%	2%	-3%
- Pakistan	-7%	-35%	15%	-4%
- Canada	-3%	-2%	-9%	-2%
- <b>All countries</b>	<b>1%</b>	<b>5%</b>	<b>4%</b>	<b>4%</b>

## Postgraduate Research Entrants by subject from EU domicile

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	245	265	260	300	250
Subjects allied to medicine	195	220	240	230	250
Biological sciences	475	525	505	495	565
Veterinary science	20	15	10	10	20
Agriculture & related subjects	35	25	30	45	40
Physical sciences	455	490	550	525	600
Mathematical sciences	115	125	155	130	170
Computer science	185	215	200	250	245
Engineering & technology	460	590	560	530	585
Architecture, building & planning	45	75	85	70	80
<b>STEM</b>	<b>2,230</b>	<b>2,545</b>	<b>2,590</b>	<b>2,580</b>	<b>2,805</b>
Social studies	475	550	575	505	475
Law	100	95	115	105	110
Business & administrative studies	245	240	285	265	240
Mass communications and documentation	20	40	50	40	45
Languages	285	310	290	295	300
Historical and philosophical studies	250	245	300	305	280
Creative arts & design	130	130	180	155	145
Education	180	200	185	175	130
Combined	0	0	10	5	0
<b>Non-STEM</b>	<b>1,685</b>	<b>1,805</b>	<b>1,990</b>	<b>1,855</b>	<b>1,730</b>
<b>Total</b>	<b>3,915</b>	<b>4,350</b>	<b>4,580</b>	<b>4,435</b>	<b>4,530</b>

Source: Higher Education Statistics Agency

*All figures rounded to the nearest 5*

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Postgraduate Taught Entrants by subject from EU domicile

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	495	545	555	570	515
Subjects allied to medicine	1,150	1,110	1,120	1,065	1,030
Biological sciences	860	945	1,105	1,180	1,085
Veterinary science	40	30	20	30	20
Agriculture & related subjects	180	215	210	185	145
Physical sciences	600	615	670	620	640
Mathematical sciences	250	265	340	340	385
Computer science	820	855	975	960	880
Engineering & technology	1,970	2,370	2,450	2,505	2,440
Architecture, building & planning	575	725	730	715	685
<b>STEM</b>	<b>6,930</b>	<b>7,675</b>	<b>8,180</b>	<b>8,175</b>	<b>7,825</b>
Social studies	2,435	2,720	2,785	2,745	2,625
Law	1,465	1,700	1,735	1,655	1,685
Business & administrative studies	4,640	5,400	5,830	5,860	5,405
Mass communications and documentation	620	755	845	795	690
Languages	1,035	1,095	1,130	1,045	920
Historical and philosophical studies	535	530	555	630	580
Creative arts & design	1,315	1,530	1,665	1,695	1,555
Education	2,055	2,090	2,015	1,825	1,430
Combined	40	75	75	65	70
<b>Non-STEM</b>	<b>14,135</b>	<b>15,900</b>	<b>16,635</b>	<b>16,315</b>	<b>14,965</b>
<b>Total</b>	<b>21,065</b>	<b>23,575</b>	<b>24,810</b>	<b>24,495</b>	<b>22,790</b>

Source: Higher Education Statistics Agency

*All figures rounded to the nearest 5*

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Undergraduate Entrants by subject from EU domicile

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	225	240	275	235	210
Subjects allied to medicine	2,005	2,140	2,120	1,970	1,690
Biological sciences	1,930	2,130	2,160	2,375	2,210
Veterinary science	30	20	25	20	15
Agriculture & related subjects	210	220	290	295	180
Physical sciences	870	1,010	1,065	1,025	945
Mathematical sciences	440	465	425	495	435
Computer science	1,610	1,805	1,765	1,695	1,550
Engineering & technology	3,325	3,630	3,500	3,320	2,600
Architecture, building & planning	1,030	1,125	1,140	1,020	750
<b>STEM</b>	<b>11,670</b>	<b>12,780</b>	<b>12,760</b>	<b>12,445</b>	<b>10,585</b>
Social studies	2,480	2,515	2,935	3,035	2,610
Law	1,380	1,280	1,425	1,410	1,275
Business & administrative studies	9,100	9,535	9,080	8,875	6,230
Mass communications and documentation	850	990	1,045	1,155	1,010
Languages	4,150	4,205	3,620	3,515	2,680
Historical and philosophical studies	725	765	835	815	650
Creative arts & design	2,715	2,840	2,975	3,430	2,565
Education	905	755	655	405	460
Combined	1,260	795	770	750	750
<b>Non-STEM</b>	<b>23,565</b>	<b>23,675</b>	<b>23,335</b>	<b>23,390</b>	<b>18,215</b>
<b>Total</b>	<b>35,235</b>	<b>36,455</b>	<b>36,095</b>	<b>35,835</b>	<b>28,800</b>

Source: Higher Education Statistics Agency

*All figures rounded to the nearest 5*

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim



## Total Entrants by subject from EU domicile

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	965	1,050	1,090	1,105	975
Subjects allied to medicine	3,345	3,470	3,480	3,270	2,970
Biological sciences	3,260	3,595	3,765	4,050	3,860
Veterinary science	85	60	55	55	55
Agriculture & related subjects	425	465	525	525	365
Physical sciences	1,925	2,115	2,290	2,165	2,185
Mathematical sciences	805	855	925	965	990
Computer science	2,620	2,875	2,940	2,905	2,675
Engineering & technology	5,755	6,590	6,510	6,355	5,630
Architecture, building & planning	1,650	1,925	1,950	1,805	1,510
<b>STEM</b>	<b>20,830</b>	<b>23,000</b>	<b>23,525</b>	<b>23,200</b>	<b>21,210</b>
Social studies	5,390	5,780	6,295	6,290	5,710
Law	2,940	3,075	3,270	3,170	3,070
Business & administrative studies	13,985	15,175	15,190	15,005	11,875
Mass communications and documentation	1,490	1,785	1,945	1,995	1,745
Languages	5,470	5,610	5,040	4,855	3,895
Historical and philosophical studies	1,510	1,540	1,690	1,750	1,505
Creative arts & design	4,155	4,500	4,825	5,280	4,265
Education	3,135	3,045	2,850	2,405	2,020
Combined	1,305	870	855	820	820
<b>Non-STEM</b>	<b>39,385</b>	<b>41,385</b>	<b>41,960</b>	<b>41,560</b>	<b>34,910</b>
<b>Total</b>	<b>60,215</b>	<b>64,385</b>	<b>65,485</b>	<b>64,765</b>	<b>56,120</b>

Source: Higher Education Statistics Agency

*All figures rounded to the nearest 5*

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Top 10 countries for Transnational Education (1) enrolments

UK Higher Education Institutions—Academic years 2008/09 to 2012/13

*Excluding Oxford Brookes*

2008/09		2009/10		2010/11	
Malaysia	25,935	Malaysia	31,545	Malaysia	37,515
Singapore	23,200	Singapore	25,535	Singapore	27,045
Hong Kong SAR	20,370	Hong Kong SAR	22,230	Hong Kong SAR	23,735
China	14,950	China	14,740	China	16,195
Greece	10,665	Greece	10,505	Greece	10,240
Trinidad and Tobago	9,440	Trinidad and Tobago	9,760	Ireland	9,835
Ireland	9,325	Ireland	9,505	Trinidad and Tobago	9,285
Russia	9,090	Oman	7,370	Egypt	8,430
Oman	7,040	Egypt	7,250	United Arab Emirates	7,840
Egypt	6,455	Russia	7,030	Oman	7,630
<b>Total in all Countries</b>	<b>224,840</b>	<b>Total in all Countries</b>	<b>246,640</b>	<b>Total in all Countries</b>	<b>263,850</b>

2011/12		2012/13	
Malaysia	45,425	Malaysia	47,440
Singapore	31,920	Singapore	30,880
Hong Kong SAR	24,580	Hong Kong SAR	24,705
China	18,110	China	20,400
Oman	12,110	Oman	11,710
Greece	11,010	United Arab Emirates	11,525
Ireland	10,220	Greece	10,820
United Arab Emirates	10,055	Germany	10,685
Egypt	9,830	Egypt	10,295
Trinidad and Tobago	9,380	Sri Lanka	9,395
<b>Total in all Countries</b>	<b>319,015</b>	<b>Total in all Countries</b>	<b>337,260</b>

Source: HESA Aggregate Offshore Record 2012/13

Note:

(1) Transnational education refers to students studying wholly overseas for a UK qualification. A link is provided for more information.

[http://www.hesa.ac.uk/component/option,com\\_studrec/task,show\\_file/Itemid,233/mnl,12052/href,coverage.html/](http://www.hesa.ac.uk/component/option,com_studrec/task,show_file/Itemid,233/mnl,12052/href,coverage.html/)

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

(3) Figures include students studying for a Further Education level qualification from UK HEIs overseas

(4) This data is only for enrolments. All other tables refer to entrants

## Country abbreviations used

Hong Kong SAR      Hong Kong (Special Administrative Region of China)  
 Russia              Russia [Russian Federation]

# **CONTINUED: Top 10 countries for Transnational Education (1) enrolments**

UK Higher Education Institutions—Academic years 2008/09 to 2012/13

*Including Oxford Brookes*

2008/09		2009/10		2010/11	
Malaysia	42,535	Malaysia	48,255	Malaysia	58,115
Singapore	40,360	Singapore	42,715	Singapore	46,865
Pakistan	23,145	Hong Kong SAR	24,135	China	35,825
Hong Kong SAR	22,170	Pakistan	23,570	Pakistan	34,905
Nigeria	15,670	Nigeria	16,930	Hong Kong SAR	29,455
China	15,010	China	14,785	Nigeria	22,425
Ireland	13,975	Ireland	14,155	Ghana	15,755
Ghana	13,420	Ghana	13,640	Ireland	15,215
Trinidad and Tobago	13,080	Greece	11,515	Trinidad and Tobago	13,385
Greece	11,675	Trinidad and Tobago	11,230	Greece	11,515
<b>Total in all Countries</b>	<b>388,135</b>	<b>Total in all Countries</b>	<b>408,685</b>	<b>Total in all Countries</b>	<b>503,795</b>

2011/12		2012/13	
Malaysia	66,920	Malaysia	68,020
Singapore	51,770	Singapore	50,025
Pakistan	39,080	China	42,475
China	38,275	Pakistan	41,805
Hong Kong SAR	30,100	Hong Kong SAR	29,905
Nigeria	24,000	Nigeria	26,395
Ghana	17,225	Ghana	16,900
Ireland	15,715	United Arab Emirates	15,125
Trinidad and Tobago	13,565	Ireland	14,725
United Arab Emirates	13,460	Trinidad and Tobago	13,135
<b>Total in all Countries</b>	<b>571,010</b>	<b>Total in all Countries</b>	<b>598,925</b>

Source: HESA Aggregate Offshore Record 2012/13

Note:

(1) Transnational education refers to students studying wholly overseas for a UK qualification. A link is provided for more information.

[http://www.hesa.ac.uk/component/option,com\\_studrec/task,show\\_file/Itemid,233/mnl,12052/href,coverage.html/](http://www.hesa.ac.uk/component/option,com_studrec/task,show_file/Itemid,233/mnl,12052/href,coverage.html/)

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

(3) Figures include students studying for a Further Education level qualification from UK HEIs overseas

(4) This data is only for enrolments. All other tables refer to entrants

## **Country abbreviations used**

Hong Kong SAR      Hong Kong (Special Administrative Region of China)  
Russia                Russia [Russian Federation]

# **Entrants Domiciled (1) from China studying Postgraduate Research by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	35	35	45	40	50
Subjects allied to medicine	55	55	65	90	85
Biological sciences	80	85	75	90	100
Veterinary science	0	0	0	0	0
Agriculture & related subjects	5	10	15	15	10
Physical sciences	115	135	155	215	210
Mathematical sciences	40	35	45	60	65
Computer science	105	100	105	120	100
Engineering & technology	415	495	565	590	650
Architecture, building & planning	25	40	35	35	50
<b>STEM</b>	<b>875</b>	<b>995</b>	<b>1,100</b>	<b>1,255</b>	<b>1,325</b>
Social studies	90	95	105	100	130
Law	25	25	20	30	15
Business & administrative studies	120	135	130	125	130
Mass communications and documentation	10	5	20	15	10
Languages	40	35	45	55	60
Historical and philosophical studies	25	15	20	25	35
Creative arts & design	15	15	15	15	30
Education	35	40	30	55	60
Combined	0	0	5	0	0
<b>Non-STEM</b>	<b>360</b>	<b>370</b>	<b>390</b>	<b>425</b>	<b>465</b>
<b>Total</b>	<b>1,235</b>	<b>1,360</b>	<b>1,490</b>	<b>1,680</b>	<b>1,790</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from China studying Postgraduate Taught by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	60	35	55	65	50
Subjects allied to medicine	115	140	160	190	175
Biological sciences	160	175	235	280	305
Veterinary science	0	0	0	0	0
Agriculture & related subjects	55	90	80	110	120
Physical sciences	110	155	175	235	280
Mathematical sciences	260	310	405	650	665
Computer science	570	705	770	850	970
Engineering & technology	1,415	1,830	2,225	3,000	3,175
Architecture, building & planning	325	440	610	770	885
<b>STEM</b>	<b>3,070</b>	<b>3,880</b>	<b>4,710</b>	<b>6,160</b>	<b>6,630</b>
Social studies	1,110	1,375	2,040	2,565	2,920
Law	495	555	525	660	690
Business & administrative studies	7,680	9,655	12,480	16,295	18,355
Mass communications and documentation	450	815	1,150	1,310	1,530
Languages	445	565	875	1,100	1,035
Historical and philosophical studies	50	60	70	95	145
Creative arts & design	410	640	950	1,155	1,450
Education	400	515	790	1,030	1,025
Combined	5	10	5	20	5
<b>Non-STEM</b>	<b>11,045</b>	<b>14,190</b>	<b>18,890</b>	<b>24,235</b>	<b>27,150</b>
<b>Total</b>	<b>14,110</b>	<b>18,070</b>	<b>23,600</b>	<b>30,395</b>	<b>33,780</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from China studying Undergraduate by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	5	5	10	15	10
Subjects allied to medicine	85	90	150	200	95
Biological sciences	125	170	190	220	220
Veterinary science	0	0	0	0	0
Agriculture & related subjects	35	45	40	50	55
Physical sciences	110	165	190	245	255
Mathematical sciences	620	770	700	740	880
Computer science	495	510	515	550	440
Engineering & technology	1,250	1,480	1,860	1,905	2,010
Architecture, building & planning	170	240	240	320	515
<b>STEM</b>	<b>2,895</b>	<b>3,480</b>	<b>3,895</b>	<b>4,240</b>	<b>4,480</b>
Social studies	850	975	1,075	1,205	1,265
Law	80	60	55	75	70
Business & administrative studies	5,990	7,610	9,780	10,915	10,450
Mass communications and documentation	170	230	315	345	290
Languages	2,470	3,915	3,365	3,565	3,060
Historical and philosophical studies	25	25	40	105	65
Creative arts & design	460	675	645	700	980
Education	200	315	325	115	140
Combined	400	235	250	180	165
<b>Non-STEM</b>	<b>10,650</b>	<b>14,040</b>	<b>15,850</b>	<b>17,210</b>	<b>16,490</b>
<b>Total</b>	<b>13,545</b>	<b>17,515</b>	<b>19,745</b>	<b>21,450</b>	<b>20,970</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

### Total Entrants Domiciled (1) from China by subjects

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	95	75	110	115	115
Subjects allied to medicine	255	290	370	480	355
Biological sciences	370	430	500	590	625
Veterinary science	0	0	0	5	5
Agriculture & related subjects	95	145	130	175	180
Physical sciences	335	455	515	695	750
Mathematical sciences	920	1,115	1,150	1,450	1,610
Computer science	1,170	1,315	1,390	1,520	1,515
Engineering & technology	3,080	3,800	4,650	5,495	5,830
Architecture, building & planning	520	720	885	1,125	1,450
<b>STEM</b>	<b>6,840</b>	<b>8,350</b>	<b>9,705</b>	<b>11,655</b>	<b>12,430</b>
Social studies	2,050	2,445	3,220	3,875	4,315
Law	600	640	605	765	780
Business & administrative studies	13,785	17,395	22,395	27,335	28,935
Mass communications and documentation	630	1,055	1,480	1,670	1,830
Languages	2,955	4,515	4,280	4,725	4,150
Historical and philosophical studies	100	100	135	225	245
Creative arts & design	885	1,330	1,610	1,870	2,455
Education	635	870	1,145	1,205	1,225
Combined	405	245	260	205	170
<b>Non-STEM</b>	<b>22,050</b>	<b>28,595</b>	<b>35,130</b>	<b>41,870</b>	<b>44,105</b>
<b>Total</b>	<b>28,895</b>	<b>36,950</b>	<b>44,835</b>	<b>53,525</b>	<b>56,535</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from India studying Postgraduate Research by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	40	50	45	50	35
Subjects allied to medicine	60	45	45	60	55
Biological sciences	105	85	90	70	65
Veterinary science	0	0	0	0	0
Agriculture & related subjects	5	5	10	5	5
Physical sciences	65	55	55	60	55
Mathematical sciences	10	5	10	10	10
Computer science	25	20	45	25	30
Engineering & technology	120	105	160	120	115
Architecture, building & planning	10	10	15	5	5
<b>STEM</b>	<b>435</b>	<b>390</b>	<b>475</b>	<b>405</b>	<b>375</b>
Social studies	50	45	40	40	35
Law	15	10	15	10	5
Business & administrative studies	20	35	30	30	40
Mass communications and documentation	5	5	5	0	5
Languages	10	15	5	20	20
Historical and philosophical studies	20	15	15	15	15
Creative arts & design	5	10	5	5	5
Education	10	10	10	10	15
Combined	0	5	0	0	0
<b>Non-STEM</b>	<b>135</b>	<b>145</b>	<b>125</b>	<b>125</b>	<b>140</b>
<b>Total</b>	<b>570</b>	<b>535</b>	<b>595</b>	<b>530</b>	<b>515</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim



# **Entrants Domiciled (1) from India studying Postgraduate Taught by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	225	170	215	215	160
Subjects allied to medicine	1,135	1,230	1,405	715	410
Biological sciences	725	735	585	400	250
Veterinary science	0	0	0	0	0
Agriculture & related subjects	105	110	80	55	35
Physical sciences	215	250	270	150	100
Mathematical sciences	75	85	115	55	35
Computer science	3,760	3,010	2,475	1,290	850
Engineering & technology	3,215	2,870	2,745	1,600	1,195
Architecture, building & planning	355	300	275	255	185
<b>STEM</b>	<b>9,815</b>	<b>8,765</b>	<b>8,170</b>	<b>4,740</b>	<b>3,220</b>
Social studies	400	455	490	425	325
Law	375	375	360	310	275
Business & administrative studies	7,835	8,300	8,340	5,720	4,045
Mass communications and documentation	195	230	240	190	150
Languages	45	40	40	35	55
Historical and philosophical studies	30	25	35	30	25
Creative arts & design	230	320	330	295	235
Education	120	125	155	125	140
Combined	5	15	5	0	0
<b>Non-STEM</b>	<b>9,230</b>	<b>9,890</b>	<b>10,000</b>	<b>7,135</b>	<b>5,255</b>
<b>Total</b>	<b>19,045</b>	<b>18,655</b>	<b>18,165</b>	<b>11,875</b>	<b>8,470</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from India studying Undergraduate by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	10	10	5	15	10
Subjects allied to medicine	365	580	1,220	570	440
Biological sciences	75	65	120	85	75
Veterinary science	0	0	0	0	0
Agriculture & related subjects	5	10	10	5	5
Physical sciences	35	35	45	35	30
Mathematical sciences	20	20	20	20	30
Computer science	250	325	385	260	185
Engineering & technology	755	800	805	850	670
Architecture, building & planning	25	50	40	50	45
<b>STEM</b>	<b>1,540</b>	<b>1,895</b>	<b>2,650</b>	<b>1,885</b>	<b>1,485</b>
Social studies	115	135	165	190	165
Law	70	75	95	80	70
Business & administrative studies	985	1,080	1,455	1,225	1,100
Mass communications and documentation	25	35	35	45	30
Languages	360	505	600	255	170
Historical and philosophical studies	10	15	15	30	20
Creative arts & design	95	120	145	155	155
Education	195	40	30	25	65
Combined	40	25	35	50	25
<b>Non-STEM</b>	<b>1,890</b>	<b>2,040</b>	<b>2,570</b>	<b>2,050</b>	<b>1,805</b>
<b>Total</b>	<b>3,430</b>	<b>3,935</b>	<b>5,220</b>	<b>3,935</b>	<b>3,295</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Hong Kong studying Postgraduate Research by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	5	5	10	5	5
Subjects allied to medicine	10	5	5	10	15
Biological sciences	10	10	15	15	10
Veterinary science	0	0	0	0	0
Agriculture & related subjects	0	0	0	0	0
Physical sciences	5	10	15	10	15
Mathematical sciences	0	5	5	5	5
Computer science	0	0	5	0	0
Engineering & technology	10	15	15	10	10
Architecture, building & planning	0	5	0	0	5
<b>STEM</b>	<b>50</b>	<b>50</b>	<b>70</b>	<b>60</b>	<b>65</b>
Social studies	15	15	15	15	15
Law	5	5	0	0	0
Business & administrative studies	10	5	5	10	0
Mass communications and documentation	0	0	0	0	5
Languages	10	10	5	15	10
Historical and philosophical studies	10	5	5	10	5
Creative arts & design	0	5	5	5	5
Education	35	40	10	10	10
Combined	0	0	0	0	0
<b>Non-STEM</b>	<b>85</b>	<b>85</b>	<b>50</b>	<b>60</b>	<b>50</b>
<b>Total</b>	<b>140</b>	<b>135</b>	<b>115</b>	<b>120</b>	<b>120</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Hong Kong studying Postgraduate Taught by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	115	90	80	90	70
Subjects allied to medicine	25	35	30	30	40
Biological sciences	35	40	50	45	40
Veterinary science	0	0	0	0	0
Agriculture & related subjects	0	5	0	5	5
Physical sciences	15	25	30	15	30
Mathematical sciences	25	25	20	20	30
Computer science	15	25	15	15	15
Engineering & technology	60	60	50	45	35
Architecture, building & planning	30	30	45	55	65
<b>STEM</b>	<b>315</b>	<b>335</b>	<b>325</b>	<b>320</b>	<b>330</b>
Social studies	85	120	120	125	120
Law	80	60	70	70	70
Business & administrative studies	305	450	335	385	375
Mass communications and documentation	15	20	20	25	15
Languages	30	35	40	45	40
Historical and philosophical studies	15	25	20	15	40
Creative arts & design	65	65	95	75	90
Education	40	30	40	35	45
Combined	0	5	0	0	0
<b>Non-STEM</b>	<b>635</b>	<b>810</b>	<b>740</b>	<b>775</b>	<b>790</b>
<b>Total</b>	<b>955</b>	<b>1,145</b>	<b>1,065</b>	<b>1,090</b>	<b>1,120</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Hong Kong studying Undergraduate by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	70	75	60	60	45
Subjects allied to medicine	140	135	190	230	315
Biological sciences	175	155	200	245	295
Veterinary science	5	15	15	15	15
Agriculture & related subjects	15	10	20	20	45
Physical sciences	105	120	135	165	190
Mathematical sciences	145	130	145	155	165
Computer science	50	50	55	60	70
Engineering & technology	220	210	245	280	395
Architecture, building & planning	80	100	100	130	170
<b>STEM</b>	<b>1,005</b>	<b>990</b>	<b>1,165</b>	<b>1,360</b>	<b>1,700</b>
Social studies	320	320	350	415	490
Law	185	195	240	310	385
Business & administrative studies	1,035	825	960	1255	1475
Mass communications and documentation	55	55	60	80	85
Languages	225	285	290	310	385
Historical and philosophical studies	45	50	50	40	45
Creative arts & design	230	270	245	295	365
Education	35	30	45	15	40
Combined	40	40	40	30	100
<b>Non-STEM</b>	<b>2,170</b>	<b>2,065</b>	<b>2,285</b>	<b>2,750</b>	<b>3,370</b>
<b>Total</b>	<b>3,175</b>	<b>3,060</b>	<b>3,450</b>	<b>4,110</b>	<b>5,070</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

### Total Entrants Domiciled (1) from Hong Kong by subjects

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	190	165	150	155	125
Subjects allied to medicine	175	175	230	270	365
Biological sciences	220	205	265	305	345
Veterinary science	5	15	15	15	20
Agriculture & related subjects	15	15	20	25	50
Physical sciences	130	155	185	195	235
Mathematical sciences	170	155	170	180	195
Computer science	70	70	70	75	85
Engineering & technology	290	285	310	340	440
Architecture, building & planning	110	130	145	185	240
<b>STEM</b>	<b>1,375</b>	<b>1,375</b>	<b>1,560</b>	<b>1,740</b>	<b>2,095</b>
Social studies	420	455	485	550	620
Law	270	260	310	380	450
Business & administrative studies	1,350	1,275	1,300	1,650	1,850
Mass communications and documentation	75	80	85	105	100
Languages	265	330	335	365	435
Historical and philosophical studies	70	80	75	65	95
Creative arts & design	295	340	345	380	460
Education	110	100	95	55	95
Combined	40	45	40	30	100
<b>Non-STEM</b>	<b>2,895</b>	<b>2,960</b>	<b>3,070</b>	<b>3,580</b>	<b>4,210</b>
<b>Total</b>	<b>4,265</b>	<b>4,340</b>	<b>4,635</b>	<b>5,320</b>	<b>6,305</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Saudi Arabia studying Postgraduate Research by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	35	50	80	80	70
Subjects allied to medicine	40	50	55	65	60
Biological sciences	40	70	70	70	65
Veterinary science	0	0	0	0	0
Agriculture & related subjects	5	5	15	10	5
Physical sciences	25	55	60	70	30
Mathematical sciences	15	20	40	20	25
Computer science	50	75	125	120	90
Engineering & technology	45	70	85	80	45
Architecture, building & planning	5	15	20	20	20
<b>STEM</b>	<b>250</b>	<b>410</b>	<b>555</b>	<b>530</b>	<b>415</b>
Social studies	20	20	20	25	25
Law	15	20	20	25	25
Business & administrative studies	35	60	85	90	80
Mass communications and documentation	5	5	10	10	10
Languages	35	35	50	45	55
Historical and philosophical studies	0	5	5	5	10
Creative arts & design	0	5	5	5	15
Education	35	30	50	50	55
Combined	0	0	0	0	0
<b>Non-STEM</b>	<b>140</b>	<b>180</b>	<b>245</b>	<b>260</b>	<b>275</b>
<b>Total</b>	<b>390</b>	<b>585</b>	<b>795</b>	<b>790</b>	<b>695</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Saudi Arabia studying Postgraduate Taught by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	95	135	95	105	100
Subjects allied to medicine	115	140	150	125	130
Biological sciences	55	120	135	85	110
Veterinary science	0	0	0	0	0
Agriculture & related subjects	15	15	30	20	5
Physical sciences	40	85	110	60	55
Mathematical sciences	10	45	35	30	15
Computer science	180	370	385	160	200
Engineering & technology	150	240	220	160	170
Architecture, building & planning	25	70	50	20	45
<b>STEM</b>	<b>685</b>	<b>1,225</b>	<b>1,220</b>	<b>765</b>	<b>830</b>
Social studies	35	60	75	50	40
Law	60	200	225	75	60
Business & administrative studies	355	840	915	535	550
Mass communications and documentation	40	65	60	35	35
Languages	95	95	95	85	80
Historical and philosophical studies	0	5	0	5	5
Creative arts & design	20	25	20	30	25
Education	75	110	155	110	110
Combined	0	0	0	0	0
<b>Non-STEM</b>	<b>680</b>	<b>1,395</b>	<b>1,545</b>	<b>915</b>	<b>905</b>
<b>Total</b>	<b>1,365</b>	<b>2,620</b>	<b>2,765</b>	<b>1,685</b>	<b>1,735</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim



# **Entrants Domiciled (1) from Saudi Arabia studying Undergraduate by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	5	5	5	10	10
Subjects allied to medicine	50	55	70	85	90
Biological sciences	30	30	55	35	55
Veterinary science	0	0	0	0	0
Agriculture & related subjects	0	0	5	5	0
Physical sciences	65	45	75	35	60
Mathematical sciences	10	15	10	5	10
Computer science	95	180	305	185	120
Engineering & technology	315	495	710	505	415
Architecture, building & planning	15	35	25	40	30
<b>STEM</b>	<b>580</b>	<b>855</b>	<b>1,265</b>	<b>910</b>	<b>790</b>
Social studies	55	50	55	35	50
Law	30	55	75	50	50
Business & administrative studies	320	565	715	480	380
Mass communications and documentation	5	10	10	10	5
Languages	550	780	400	230	200
Historical and philosophical studies	5	10	0	20	5
Creative arts & design	15	20	20	20	25
Education	20	35	15	10	30
Combined	60	95	45	25	35
<b>Non-STEM</b>	<b>1,065</b>	<b>1,615</b>	<b>1,345</b>	<b>880</b>	<b>780</b>
<b>Total</b>	<b>1,645</b>	<b>2,470</b>	<b>2,610</b>	<b>1,790</b>	<b>1,575</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Total Entrants Domiciled (1) from Saudi Arabia by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	135	190	185	195	180
Subjects allied to medicine	205	245	280	275	275
Biological sciences	125	220	255	195	230
Veterinary science	0	0	5	0	0
Agriculture & related subjects	15	25	50	35	10
Physical sciences	130	185	245	165	145
Mathematical sciences	30	80	85	55	50
Computer science	320	625	820	465	410
Engineering & technology	510	800	1,020	745	630
Architecture, building & planning	45	120	100	75	95
<b>STEM</b>	<b>1,515</b>	<b>2,485</b>	<b>3,035</b>	<b>2,205</b>	<b>2,035</b>
Social studies	115	130	150	115	115
Law	105	275	320	150	135
Business & administrative studies	705	1,470	1,715	1,105	1,015
Mass communications and documentation	45	80	80	55	50
Languages	680	910	545	360	335
Historical and philosophical studies	10	15	10	30	20
Creative arts & design	35	50	50	50	70
Education	130	170	225	170	195
Combined	60	95	45	25	35
<b>Non-STEM</b>	<b>1,885</b>	<b>3,195</b>	<b>3,135</b>	<b>2,055</b>	<b>1,965</b>
<b>Total</b>	<b>3,400</b>	<b>5,680</b>	<b>6,175</b>	<b>4,265</b>	<b>4,000</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Pakistan studying Postgraduate Research by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	20	20	10	15	10
Subjects allied to medicine	15	10	20	10	10
Biological sciences	40	20	15	10	15
Veterinary science	0	0	0	0	0
Agriculture & related subjects	10	5	0	0	0
Physical sciences	40	30	15	25	15
Mathematical sciences	20	10	5	10	5
Computer science	35	55	20	25	30
Engineering & technology	100	95	55	55	60
Architecture, building & planning	0	5	5	10	5
<b>STEM</b>	<b>280</b>	<b>245</b>	<b>150</b>	<b>160</b>	<b>155</b>
Social studies	30	40	25	30	20
Law	0	10	5	5	5
Business & administrative studies	40	35	40	50	50
Mass communications and documentation	0	0	5	5	5
Languages	15	10	10	5	5
Historical and philosophical studies	5	10	5	0	10
Creative arts & design	5	5	0	5	0
Education	20	25	5	20	20
Combined	0	0	0	0	0
<b>Non-STEM</b>	<b>120</b>	<b>130</b>	<b>95</b>	<b>120</b>	<b>115</b>
<b>Total</b>	<b>400</b>	<b>375</b>	<b>245</b>	<b>280</b>	<b>270</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Pakistan studying Postgraduate Taught by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	80	70	85	55	65
Subjects allied to medicine	115	130	160	125	100
Biological sciences	40	40	45	35	35
Veterinary science	0	0	0	0	0
Agriculture & related subjects	15	10	10	5	5
Physical sciences	50	35	40	35	25
Mathematical sciences	15	15	20	20	10
Computer science	455	460	425	165	125
Engineering & technology	545	465	595	320	240
Architecture, building & planning	35	35	30	25	30
<b>STEM</b>	<b>1,350</b>	<b>1,250</b>	<b>1,410</b>	<b>785</b>	<b>635</b>
Social studies	185	170	215	160	115
Law	275	210	255	175	155
Business & administrative studies	1,470	1,705	1,945	1,485	980
Mass communications and documentation	30	30	35	25	25
Languages	20	25	20	15	10
Historical and philosophical studies	5	5	5	10	5
Creative arts & design	30	35	45	30	20
Education	75	65	80	65	50
Combined	0	0	5	0	5
<b>Non-STEM</b>	<b>2,100</b>	<b>2,245</b>	<b>2,600</b>	<b>1,965</b>	<b>1,360</b>
<b>Total</b>	<b>3,445</b>	<b>3,495</b>	<b>4,005</b>	<b>2,750</b>	<b>1,995</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# **Entrants Domiciled (1) from Pakistan studying Undergraduate by subjects**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	5	5	10	10	5
Subjects allied to medicine	35	30	40	30	25
Biological sciences	50	20	40	30	40
Veterinary science	0	0	0	0	0
Agriculture & related subjects	0	5	0	5	0
Physical sciences	20	15	20	15	10
Mathematical sciences	25	20	20	25	20
Computer science	130	105	170	115	85
Engineering & technology	300	245	300	290	250
Architecture, building & planning	15	20	10	10	10
<b>STEM</b>	<b>580</b>	<b>470</b>	<b>610</b>	<b>530</b>	<b>445</b>
Social studies	115	95	110	80	85
Law	100	105	100	110	105
Business & administrative studies	620	550	660	730	630
Mass communications and documentation	10	10	20	20	15
Languages	65	85	110	75	65
Historical and philosophical studies	10	10	10	10	5
Creative arts & design	15	15	25	25	25
Education	35	30	25	15	10
Combined	30	25	10	20	15
<b>Non-STEM</b>	<b>1,005</b>	<b>920</b>	<b>1,070</b>	<b>1,085</b>	<b>950</b>
<b>Total</b>	<b>1,580</b>	<b>1,385</b>	<b>1,680</b>	<b>1,615</b>	<b>1,395</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

### Total Entrants Domiciled (1) from Pakistan by subjects

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
Medicine & dentistry	105	95	105	85	80
Subjects allied to medicine	165	170	220	165	135
Biological sciences	125	80	100	75	90
Veterinary science	0	0	0	0	0
Agriculture & related subjects	25	15	10	10	5
Physical sciences	110	75	80	75	50
Mathematical sciences	60	40	45	55	30
Computer science	625	620	615	310	245
Engineering & technology	945	810	950	665	555
Architecture, building & planning	50	55	45	45	45
<b>STEM</b>	<b>2,210</b>	<b>1,965</b>	<b>2,165</b>	<b>1,475</b>	<b>1,235</b>
Social studies	330	305	345	265	215
Law	380	325	365	290	265
Business & administrative studies	2,130	2,285	2,650	2,265	1,660
Mass communications and documentation	40	40	55	50	40
Languages	100	115	135	95	80
Historical and philosophical studies	20	20	15	20	25
Creative arts & design	55	50	70	60	45
Education	135	115	110	95	80
Combined	35	25	15	20	20
<b>Non-STEM</b>	<b>3,225</b>	<b>3,290</b>	<b>3,760</b>	<b>3,170</b>	<b>2,425</b>
<b>Total</b>	<b>5,430</b>	<b>5,255</b>	<b>5,925</b>	<b>4,645</b>	<b>3,660</b>

*All figures rounded to the nearest 5*

Source: Higher Education Statistical Agency

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

# Entrants domiciled in India studying Postgraduate Research in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	30	30	60	30	35
Civil Engineering	10	0	5	10	5
Mechanical Engineering	20	15	25	15	10
Aerospace Engineering	5	5	10	0	5
Naval Architecture	0	0	0	0	0
Electronic and Electrical Engineering	25	30	30	40	35
Production and Manufacturing Engineering	0	0	0	5	5
Chemical, Process and Energy Engineering	10	10	10	5	5
Others in Engineering	0	0	0	0	0
Bal com - (1) Eng & Tech	0	0	0	0	/
Minerals Technology	0	0	0	0	0
Metallurgy	5	5	5	5	0
Ceramics and Glasses	0	0	0	0	0
Polymers and Textiles	5	0	0	0	0
Materials Technology not otherwise specified	5	5	10	5	5
Maritime Technology	0	0	0	0	0
Industrial Biotechnology	0	0	5	5	/
Others in Technology	0	0	0	0	0
Biotechnology	/	/	/	/	0
Broadly-based programmes within engineering & technology	/	/	/	/	0
<b>Total</b>	<b>120</b>	<b>105</b>	<b>160</b>	<b>120</b>	<b>115</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Entrants domiciled in India studying Postgraduate Taught in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	365	260	280	160	110
Civil Engineering	210	155	175	140	130
Mechanical Engineering	475	385	470	310	200
Aerospace Engineering	110	95	150	85	95
Naval Architecture	10	5	10	15	15
Electronic and Electrical Engineering	1,380	1,345	1,085	525	380
Production and Manufacturing Engineering	260	215	220	135	135
Chemical, Process and Energy Engineering	70	105	110	70	45
Others in Engineering	10	25	35	15	10
Bal com - (1) Eng & Tech	0	20	10	5	0
Minerals Technology	0	5	0	0	5
Metallurgy	5	5	0	0	5
Ceramics and Glasses	0	0	0	0	5
Polymers and Textiles	30	15	15	5	10
Materials Technology not otherwise specified	10	5	15	15	5
Maritime Technology	10	15	15	10	/
Industrial Biotechnology	265	200	140	95	10
Others in Technology	15	15	15	15	/
Biotechnology	/	/	/	/	40
Broadly-based programmes within engineering & technology	/	/	/	/	0
<b>Total</b>	<b>3,215</b>	<b>2,870</b>	<b>2,745</b>	<b>1,600</b>	<b>1,195</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim



# **Entrants domiciled in India studying Undergraduate in Engineering and Technology**

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	140	95	120	115	65
Civil Engineering	35	35	45	50	30
Mechanical Engineering	265	270	155	195	150
Aerospace Engineering	90	110	150	160	75
Naval Architecture	5	15	5	5	0
Electronic and Electrical Engineering	115	175	145	120	90
Production and Manufacturing Engineering	15	5	5	10	10
Chemical, Process and Energy Engineering	15	15	20	20	15
Others in Engineering	0	0	0	0	20
Bal com - (1) Eng & Tech	0	0	0	0	/
Minerals Technology	0	0	0	0	0
Metallurgy	0	0	0	0	0
Ceramics and Glasses	0	0	0	0	0
Polymers and Textiles	20	20	15	5	15
Materials Technology not otherwise specified	0	5	5	5	5
Maritime Technology	35	40	125	160	190
Industrial Biotechnology	10	5	5	5	/
Others in Technology	5	5	5	5	5
Biotechnology	/	/	/	/	5
Broadly-based programmes within engineering & technology	/	/	/	/	0
<b>Total</b>	<b>755</b>	<b>800</b>	<b>805</b>	<b>850</b>	<b>670</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Total Entrants domiciled in India studying in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	530	385	460	300	210
Civil Engineering	255	190	230	200	165
Mechanical Engineering	760	670	650	520	360
Aerospace Engineering	205	210	310	250	175
Naval Architecture	15	20	15	15	15
Electronic and Electrical Engineering	1,520	1,550	1,260	685	500
Production and Manufacturing Engineering	275	220	230	150	150
Chemical, Process and Energy Engineering	90	130	140	95	65
Others in Engineering	10	25	35	15	30
Bal com - (1) Eng & Tech	0	20	10	5	/
Minerals Technology	0	5	0	0	0
Metallurgy	10	10	5	5	5
Ceramics and Glasses	0	0	0	0	5
Polymers and Textiles	55	40	30	15	25
Materials Technology not otherwise specified	20	15	30	20	15
Maritime Technology	50	60	145	170	195
Industrial Biotechnology	275	205	150	105	/
Others in Technology	20	20	15	20	15
Biotechnology	/	/	/	/	45
Broadly-based programmes within engineering & technology	/	/	/	/	0
<b>Total</b>	<b>4,090</b>	<b>3,775</b>	<b>3,710</b>	<b>2,570</b>	<b>1,975</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Non-EU Entrants studying Postgraduate Research in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	370	385	455	395	475
Civil Engineering	200	195	175	200	195
Mechanical Engineering	265	270	310	270	240
Aerospace Engineering	45	40	45	40	45
Naval Architecture	5	5	5	15	10
Electronic and Electrical Engineering	480	515	540	540	635
Production and Manufacturing Engineering	35	40	45	65	70
Chemical, Process and Energy Engineering	170	180	165	170	210
Others in Engineering	0	5	0	0	0
Bal com - (1) Eng & Tech	0	0	0	0	/
Minerals Technology	0	0	0	5	0
Metallurgy	35	35	40	40	45
Ceramics and Glasses	0	5	0	5	5
Polymers and Textiles	25	20	15	15	20
Materials Technology not otherwise specified	85	75	70	75	80
Maritime Technology	5	15	15	20	15
Industrial Biotechnology	25	15	15	25	/
Others in Technology	5	10	5	10	10
Biotechnology	/	/	/	/	20
Broadly-based programmes within engineering & technology	/	/	/	/	0
<b>Total</b>	<b>1,765</b>	<b>1,805</b>	<b>1,910</b>	<b>1,890</b>	<b>2,070</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Non-EU Entrants studying Postgraduate Taught in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	1,040	1,000	1,020	835	835
Civil Engineering	1,315	1,390	1,480	1,610	1,635
Mechanical Engineering	1,100	1,120	1,255	1,090	1,105
Aerospace Engineering	325	240	380	310	375
Naval Architecture	35	45	60	55	65
Electronic and Electrical Engineering	3,255	3,485	3,435	2,810	2,575
Production and Manufacturing Engineering	715	800	880	745	720
Chemical, Process and Energy Engineering	605	800	900	850	815
Others in Engineering	110	120	145	135	115
Bal com - (1) Eng & Tech	0	30	25	5	/
Minerals Technology	5	20	5	20	5
Metallurgy	50	45	35	30	30
Ceramics and Glasses	5	0	10	10	15
Polymers and Textiles	120	90	105	155	150
Materials Technology not otherwise specified	110	150	170	165	175
Maritime Technology	75	65	55	55	80
Industrial Biotechnology	320	315	260	230	/
Others in Technology	80	110	115	140	115
Biotechnology	/	/	/	/	170
Broadly-based programmes within engineering & technology	/	/	/	/	0
<b>Total</b>	<b>9,265</b>	<b>9,815</b>	<b>10,340</b>	<b>9,255</b>	<b>8,980</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Non-EU Entrants studying Undergraduate in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	690	700	795	755	880
Civil Engineering	835	890	1,095	1,110	1,175
Mechanical Engineering	1,695	1,780	1,690	1,695	1,715
Aerospace Engineering	490	505	570	615	455
Naval Architecture	60	85	50	50	50
Electronic and Electrical Engineering	2,125	2,420	2,615	2,350	2,180
Production and Manufacturing Engineering	230	255	220	210	235
Chemical, Process and Energy Engineering	525	575	620	645	625
Others in Engineering	50	70	115	115	130
Bal com - (1) Eng & Tech	10	5	0	20	/
Minerals Technology	25	30	15	10	10
Metallurgy	15	15	15	20	20
Ceramics and Glasses	0	0	0	0	0
Polymers and Textiles	90	110	60	50	50
Materials Technology not otherwise specified	75	100	130	115	130
Maritime Technology	105	120	210	220	255
Industrial Biotechnology	55	50	65	40	/
Others in Technology	75	80	105	65	90
Biotechnology	/	/	/	/	50
Broadly-based programmes within engineering & technology	/	/	/	/	65
<b>Total</b>	<b>7,145</b>	<b>7,785</b>	<b>8,375</b>	<b>8,085</b>	<b>8,115</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Total Non-EU Entrants studying in Engineering and Technology

UK Higher Education Institutions—Academic Years 2008/09 to 2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13
General Engineering	2,100	2,085	2,275	1,990	2,195
Civil Engineering	2,345	2,470	2,750	2,920	3,005
Mechanical Engineering	3,065	3,170	3,255	3,055	3,055
Aerospace Engineering	860	785	1,000	970	870
Naval Architecture	100	140	115	120	125
Electronic and Electrical Engineering	5,860	6,415	6,585	5,700	5,390
Production and Manufacturing Engineering	980	1,095	1,145	1,015	1,025
Chemical, Process and Energy Engineering	1,300	1,555	1,685	1,665	1,645
Others in Engineering	160	190	260	250	245
Bal com - (1) Eng & Tech	10	35	25	25	/
Minerals Technology	30	45	25	30	15
Metallurgy	95	95	90	85	100
Ceramics and Glasses	5	5	15	15	20
Polymers and Textiles	240	220	180	220	215
Materials Technology not otherwise specified	275	325	370	360	385
Maritime Technology	185	195	280	295	350
Industrial Biotechnology	400	380	340	300	/
Others in Technology	160	200	225	215	220
Biotechnology	/	/	/	/	240
Broadly-based programmes within engineering & technology	/	/	/	/	65
<b>Total</b>	<b>18,175</b>	<b>19,405</b>	<b>20,625</b>	<b>19,225</b>	<b>19,165</b>

*All figures rounded to the nearest 5*

Source: HESA Student Records

Notes:

(1) For 2012/13, a review of a selection of the subject areas of the JACS coding system resulted in the implementation of a revised version of the coding frame, 'JACS3'.

(2) Subject information is shown as Full Person Equivalents (FPEs) in the table. FPEs are derived by splitting student instances between the different subjects that make up their course aim

## Government – Further supplementary written evidence

*Supplementary evidence provided by Department for Business, Innovation and Skills (BIS).*

**Table 1: Total Entrants by Subject from Non-EU Countries**

*Note: Data in all tables below from 2002/03 to 2007/08.*

*Data from 2008/09 to 2012/13 is provided on pages 126 onwards (above)*

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Engineering & technology	11,665	12,790	13,340	12,520	14,135	15,285
Computer science	8,555	8,640	8,515	7,200	7,560	7,610
Subjects allied to medicine	3,930	4,750	5,015	5,720	6,655	5,950
Biological sciences	2,515	3,270	3,335	3,440	4,075	3,835
Physical sciences	1,930	2,425	2,475	2,545	2,955	2,980
Architecture, building & planning	2,135	2,695	2,585	2,570	2,730	3,050
Medicine & dentistry	1,800	2,125	2,090	2,215	2,605	2,695
Mathematical sciences	1,310	1,790	1,645	1,695	1,955	1,980
Agriculture & related subjects	515	585	625	595	615	720
Veterinary science	80	90	110	135	190	155
<b>STEM</b>	<b>34,445</b>	<b>39,165</b>	<b>39,735</b>	<b>38,630</b>	<b>43,465</b>	<b>44,260</b>
Business & administrative studies	27,040	31,260	32,285	32,110	36,280	40,055
Social studies	8,065	10,465	9,775	9,555	10,260	10,715
Languages	10,165	9,170	8,595	7,740	8,745	8,350
Law	6,005	5,990	5,780	5,765	6,495	6,540
Creative arts & design	4,045	4,635	4,540	4,645	5,265	5,470
Education	3,415	3,995	3,720	3,675	3,925	3,830
Historical and philosophical studies	1,825	2,170	2,460	2,300	2,515	2,525
Mass communications and documentation	1,795	2,245	2,240	2,280	2,285	2,320
Combined	2,740	2,650	2,855	2,510	3,045	2,410
<b>Non-STEM</b>	<b>65,095</b>	<b>72,580</b>	<b>72,255</b>	<b>70,575</b>	<b>78,815</b>	<b>82,210</b>
<b>Total</b>	<b>99,545</b>	<b>111,745</b>	<b>111,990</b>	<b>109,205</b>	<b>122,280</b>	<b>126,470</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 1: Total Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	<b>Annual Change</b>
	<b>Between 2002/03 to 2012/13</b>
Engineering & technology	64%
Computer science	-21%
Subjects allied to medicine	58%
Biological sciences	104%
Physical sciences	116%
Architecture, building & planning	105%
Medicine & dentistry	68%
Mathematical sciences	132%
Agriculture & related subjects	54%
Veterinary science	173%
<b>STEM</b>	<b>54%</b>
Business & administrative studies	136%
Social studies	85%
Languages	-2%
Law	43%
Creative arts & design	112%
Education	25%
Historical and philosophical studies	62%
Mass communications and documentation	135%
Combined	-35%
<b>Non-STEM</b>	<b>83%</b>
<b>Total</b>	<b>73%</b>



**Table 2: Undergraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Engineering & technology	5,265	5,425	5,825	5,425	5,735	6,510
Subjects allied to medicine	2,605	3,125	3,170	3,700	3,955	3,045
Computer science	3,860	3,850	3,330	2,530	2,160	2,275
Biological sciences	1,020	1,460	1,440	1,500	1,590	1,500
Mathematical sciences	730	985	900	905	1,030	1,070
Architecture, building & planning	920	1,085	1,060	1,080	1,120	1,310
Physical sciences	610	765	720	750	880	905
Medicine & dentistry	620	715	635	690	740	740
Agriculture & related subjects	120	190	200	190	180	210
Veterinary science	45	55	65	85	135	120
<b>STEM</b>	<b>15,800</b>	<b>17,650</b>	<b>17,340</b>	<b>16,860</b>	<b>17,525</b>	<b>17,690</b>
Business & administrative studies	9,610	12,080	11,890	11,310	12,120	13,375
Languages	8,010	6,745	6,170	5,245	6,065	5,850
Social studies	2,700	3,760	3,295	3,140	3,520	3,565
Creative arts & design	2,270	2,550	2,490	2,525	2,735	2,805
Law	1,955	2,165	2,090	2,135	2,530	2,615
Combined	2,685	2,595	2,825	2,405	2,960	2,360
Education	905	990	835	855	1,020	995
Historical and philosophical studies	490	765	935	705	870	880
Mass communications and documentation	555	735	735	720	760	750
<b>Non-STEM</b>	<b>29,180</b>	<b>32,395</b>	<b>31,270</b>	<b>29,040</b>	<b>32,580</b>	<b>33,195</b>
<b>Total</b>	<b>44,980</b>	<b>50,045</b>	<b>48,615</b>	<b>45,895</b>	<b>50,105</b>	<b>50,885</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 2: Undergraduate Entrants by Subject from Non-EU Countries**  
 UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
Engineering & technology	54%
Subjects allied to medicine	16%
Computer science	-43%
Biological sciences	135%
Mathematical sciences	117%
Architecture, building & planning	82%
Physical sciences	117%
Medicine & dentistry	44%
Agriculture & related subjects	85%
Veterinary science	266%
<b>STEM</b>	<b>37%</b>
Business & administrative studies	143%
Languages	-14%
Social studies	95%
Creative arts & design	77%
Law	90%
Combined	-36%
Education	-3%
Historical and philosophical studies	80%
Mass communications and documentation	124%
<b>Non-STEM</b>	<b>65%</b>
<b>Total</b>	<b>55%</b>

**Table 3: Taught Postgraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Engineering & technology	4,855	5,595	5,885	5,535	6,680	6,980
Computer science	4,190	4,235	4,590	4,105	4,785	4,790
Subjects allied to medicine	1,075	1,345	1,520	1,715	2,260	2,415
Biological sciences	975	1,215	1,315	1,360	1,665	1,585
Architecture, building & planning	1,010	1,380	1,305	1,290	1,395	1,530
Medicine & dentistry	830	1,030	1,060	1,135	1,375	1,430
Physical sciences	800	1,095	1,140	1,110	1,280	1,310
Mathematical sciences	390	615	535	560	680	665
Agriculture & related subjects	295	330	355	310	355	410
Veterinary science	15	15	30	25	30	20
<b>STEM</b>	<b>14,430</b>	<b>16,850</b>	<b>17,735</b>	<b>17,155</b>	<b>20,500</b>	<b>21,140</b>
Business & administrative studies	16,860	18,560	19,785	20,155	23,480	25,950
Social studies	4,455	5,665	5,505	5,440	5,765	6,135
Law	3,785	3,575	3,440	3,415	3,720	3,705
Creative arts & design	1,535	1,920	1,885	1,960	2,325	2,460
Education	1,970	2,455	2,375	2,385	2,470	2,400
Languages	1,685	1,855	1,915	2,010	2,125	1,895
Mass communications and documentation	1,180	1,435	1,435	1,475	1,440	1,485
Historical and philosophical studies	835	875	970	1,050	1,050	1,050
Combined	40	20	25	65	50	40
<b>Non-STEM</b>	<b>32,345</b>	<b>36,360</b>	<b>37,330</b>	<b>37,960</b>	<b>42,430</b>	<b>45,120</b>
<b>Total</b>	<b>46,775</b>	<b>53,210</b>	<b>55,065</b>	<b>55,115</b>	<b>62,930</b>	<b>66,265</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 3: Taught Postgraduate Entrants by Subject from Non-EU Countries**  
 UK Higher Education Institutions—All entrants to taught postgraduate courses. Source:  
 Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
Engineering & technology	85%
Computer science	-6%
Subjects allied to medicine	138%
Biological sciences	97%
Architecture, building & planning	138%
Medicine & dentistry	94%
Physical sciences	142%
Mathematical sciences	191%
Agriculture & related subjects	59%
Veterinary science	80%
<b>STEM</b>	<b>73%</b>
Business & administrative studies	134%
Social studies	92%
Law	22%
Creative arts & design	180%
Education	47%
Languages	45%
Mass communications and documentation	142%
Historical and philosophical studies	70%
Combined	25%
<b>Non-STEM</b>	<b>106%</b>
<b>Total</b>	<b>96%</b>

**Table 4: Research Postgraduate Entrants by Subject from Non-EU Countries**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Engineering & technology	1,545	1,775	1,635	1,555	1,720	1,795
Biological sciences	525	595	575	580	820	750
Physical sciences	520	565	615	680	795	760
Computer science	505	560	595	570	615	545
Subjects allied to medicine	250	280	320	300	440	485
Medicine & dentistry	355	385	395	385	490	525
Mathematical sciences	190	190	210	230	245	245
Architecture, building & planning	210	230	220	200	215	210
Agriculture & related subjects	100	65	70	90	80	95
Veterinary science	20	20	20	25	25	15
<b>STEM</b>	<b>4,220</b>	<b>4,660</b>	<b>4,660</b>	<b>4,620</b>	<b>5,445</b>	<b>5,430</b>
Social studies	905	1,040	975	980	975	1,015
Business & administrative studies	575	625	610	640	680	730
Historical and philosophical studies	500	530	560	540	595	595
Languages	470	570	510	485	550	600
Education	540	550	505	430	435	435
Law	265	245	250	215	240	220
Creative arts & design	240	165	165	155	205	210
Mass communications and documentation	60	70	70	90	85	85
Combined	15	35	10	35	35	5
<b>Non-STEM</b>	<b>3,570</b>	<b>3,830</b>	<b>3,650</b>	<b>3,575</b>	<b>3,805</b>	<b>3,895</b>
<b>Total</b>	<b>7,790</b>	<b>8,490</b>	<b>8,310</b>	<b>8,195</b>	<b>9,250</b>	<b>9,325</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 4: Research Postgraduate Entrants by Subject from Non-EU Countries**  
 UK Higher Education Institutions—All entrants to research postgraduate courses. Source:  
 Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
Engineering & technology	34%
Biological sciences	58%
Physical sciences	75%
Computer science	22%
Subjects allied to medicine	150%
Medicine & dentistry	50%
Mathematical sciences	68%
Architecture, building & planning	44%
Agriculture & related subjects	3%
Veterinary science	17%
<b>STEM</b>	<b>50%</b>
Social studies	19%
Business & administrative studies	69%
Historical and philosophical studies	30%
Languages	34%
Education	-8%
Law	0%
Creative arts & design	1%
Mass communications and documentation	103%
Combined	-
<b>Non-STEM</b>	<b>25%</b>
<b>Total</b>	<b>38%</b>

**Table 5: Total Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.

Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
<i>STEM:</i>						
- China	5,940	8,055	8,235	6,920	6,715	6,705
- India	4,445	4,340	4,710	5,250	6,980	7,515
- United States	1,095	1,395	1,390	1,460	1,755	1,555
- Nigeria	1,285	1,600	2,235	2,400	2,835	3,150
- Malaysia	3,355	3,560	3,405	3,060	2,990	3,030
- Hong Kong	1,945	1,765	1,700	1,360	1,420	1,475
- Saudi Arabia	435	535	555	650	835	980
- Thailand	490	590	500	570	595	560
- Pakistan	955	1,490	2,055	2,120	2,360	2,185
- Canada	425	605	545	625	740	820
- <b>All countries</b>	<b>34,445</b>	<b>39,165</b>	<b>39,735</b>	<b>38,630</b>	<b>43,465</b>	<b>44,260</b>
<i>Non-STEM:</i>						
- China	18,770	21,745	20,340	17,640	18,420	18,940
- India	3,785	3,900	4,580	5,520	7,115	8,700
- United States	5,935	6,880	7,335	7,230	7,805	7,035
- Nigeria	1,350	1,655	2,530	2,550	3,005	3,725
- Malaysia	2,430	2,485	2,050	2,290	2,615	2,910
- Hong Kong	2,605	2,970	2,800	2,190	2,620	3,025
- Saudi Arabia	385	410	560	600	770	1,015
- Thailand	1,265	1,365	1,515	1,550	1,695	1,755
- Pakistan	815	1,330	2,050	2,330	2,860	3,015
- Canada	1,295	1,340	1,585	1,630	1,745	1,885
- <b>All countries</b>	<b>65,095</b>	<b>72,580</b>	<b>72,255</b>	<b>70,575</b>	<b>78,815</b>	<b>82,210</b>
<i>All subjects:</i>						
- China	24,710	29,800	28,575	24,560	25,135	25,645
- India	8,235	8,240	9,290	10,765	14,095	16,215
- United States	7,030	8,275	8,725	8,685	9,560	8,590
- Nigeria	2,640	3,255	4,770	4,950	5,840	6,875
- Malaysia	5,785	6,045	5,450	5,350	5,600	5,940
- Hong Kong	4,555	4,735	4,500	3,550	4,040	4,495
- Saudi Arabia	820	940	1,115	1,255	1,610	1,990
- Thailand	1,755	1,955	2,015	2,120	2,290	2,310
- Pakistan	1,770	2,820	4,105	4,450	5,220	5,205
- Canada	1,720	1,945	2,130	2,255	2,485	2,710
- <b>All countries</b>	<b>99,545</b>	<b>111,745</b>	<b>111,990</b>	<b>109,205</b>	<b>122,280</b>	<b>126,470</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 5: Total Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to undergraduate and postgraduate courses.  
Source: Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
<i>STEM:</i>	
- China	109%
- India	14%
- United States	91%
- Nigeria	259%
- Malaysia	9%
- Hong Kong	8%
- Saudi Arabia	366%
- Thailand	81%
- Pakistan	29%
- Canada	108%
<b>- All countries</b>	<b>54%</b>
<i>Non-STEM:</i>	
- China	135%
- India	90%
- United States	35%
- Nigeria	271%
- Malaysia	81%
- Hong Kong	62%
- Saudi Arabia	412%
- Thailand	142%
- Pakistan	198%
- Canada	68%
<b>- All countries</b>	<b>83%</b>
<i>All subjects:</i>	
- China	129%
- India	49%
- United States	44%
- Nigeria	265%
- Malaysia	39%
- Hong Kong	39%
- Saudi Arabia	387%
- Thailand	125%
- Pakistan	107%
- Canada	78%
<b>- All countries</b>	<b>73%</b>

**Table 6: Undergraduate Entrants by Country of Domicile**



## Government – Further supplementary written evidence

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
<i>STEM:</i>						
- China	2,640	3,070	3,005	2,440	2,445	2,865
- India	790	810	870	1,260	1,430	1,320
- United States	405	535	600	655	815	635
- Nigeria	500	670	840	870	880	1,035
- Malaysia	2,240	2,595	2,645	2,390	2,055	1,885
- Hong Kong	1,545	1,260	1,235	975	935	1,005
- Saudi Arabia	160	190	175	195	375	365
- Thailand	145	165	130	135	145	120
- Pakistan	340	520	635	600	585	555
- Canada	110	210	200	240	330	305
<b>- All countries</b>	<b>15,800</b>	<b>17,650</b>	<b>17,340</b>	<b>16,860</b>	<b>17,525</b>	<b>17,690</b>
<i>Non-STEM:</i>						
- China	9,585	10,280	9,050	7,060	7,625	8,525
- India	925	940	1,225	1,515	1,655	1,805
- United States	2,660	3,260	3,475	3,240	3,820	3,015
- Nigeria	525	645	1,020	880	980	1,045
- Malaysia	1,510	1,675	1,380	1,705	1,835	1,970
- Hong Kong	1,775	2,215	2,115	1,535	1,925	2,285
- Saudi Arabia	150	185	240	265	355	565
- Thailand	270	290	340	310	305	285
- Pakistan	325	545	800	850	960	1,005
- Canada	285	305	370	385	475	535
<b>- All countries</b>	<b>29,180</b>	<b>32,395</b>	<b>31,270</b>	<b>29,040</b>	<b>32,580</b>	<b>33,195</b>
<i>All subjects:</i>						
- China	12,225	13,355	12,060	9,500	10,065	11,385
- India	1,715	1,750	2,095	2,775	3,085	3,125
- United States	3,070	3,795	4,075	3,900	4,635	3,645
- Nigeria	1,025	1,315	1,860	1,755	1,860	2,075
- Malaysia	3,750	4,270	4,025	4,095	3,895	3,860
- Hong Kong	3,320	3,480	3,345	2,510	2,860	3,285
- Saudi Arabia	310	375	420	455	730	930
- Thailand	415	455	470	450	450	405
- Pakistan	665	1,065	1,435	1,450	1,545	1,560
- Canada	395	515	565	625	810	835
<b>- All countries</b>	<b>44,980</b>	<b>50,045</b>	<b>48,615</b>	<b>45,895</b>	<b>50,105</b>	<b>50,885</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 6: Undergraduate Entrants by Country of Domicile**

## Government – Further supplementary written evidence

UK Higher Education Institutions—All entrants to undergraduate courses. Source: Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
<i>STEM:</i>	
- China	70%
- India	89%
- United States	78%
- Nigeria	147%
- Malaysia	16%
- Hong Kong	10%
- Saudi Arabia	401%
- Thailand	88%
- Pakistan	31%
- Canada	188%
<b>- All countries</b>	<b>37%</b>
<i>Non-STEM:</i>	
- China	72%
- India	95%
- United States	19%
- Nigeria	177%
- Malaysia	119%
- Hong Kong	90%
- Saudi Arabia	422%
- Thailand	99%
- Pakistan	194%
- Canada	188%
<b>- All countries</b>	<b>65%</b>
<i>All subjects:</i>	
- China	72%
- India	92%
- United States	26%
- Nigeria	162%
- Malaysia	57%
- Hong Kong	53%
- Saudi Arabia	411%
- Thailand	95%
- Pakistan	110%
- Canada	188%
<b>- All countries</b>	<b>55%</b>

**Table 7: Taught Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
<i>STEM:</i>						
- China	2,575	3,925	4,155	3,485	3,395	3,000
- India	3,345	3,135	3,460	3,625	5,140	5,815
- United States	465	615	535	595	640	670
- Nigeria	695	835	1,265	1,400	1,780	1,960
- Malaysia	695	655	540	450	540	570
- Hong Kong	355	430	395	330	425	415
- Saudi Arabia	160	230	230	300	265	400
- Thailand	225	265	235	245	260	265
- Pakistan	520	850	1,265	1,340	1,430	1,295
- Canada	230	305	250	280	320	415
<i>Non-STEM:</i>						
- China	8,915	11,055	10,885	10,210	10,400	10,120
- India	2,740	2,845	3,255	3,900	5,355	6,785
- United States	2,680	2,985	3,165	3,300	3,280	3,340
- Nigeria	775	935	1,435	1,570	1,950	2,595
- Malaysia	745	680	565	510	640	745
- Hong Kong	665	625	595	585	625	660
- Saudi Arabia	180	165	240	265	315	360
- Thailand	910	970	1,095	1,135	1,295	1,395
- Pakistan	445	740	1,200	1,425	1,825	1,895
- Canada	845	815	1,005	1,005	1,065	1,140
- <b>All countries</b>	<b>32,345</b>	<b>36,360</b>	<b>37,330</b>	<b>37,960</b>	<b>42,430</b>	<b>45,120</b>
<i>All subjects:</i>						
- China	11,490	14,980	15,040	13,695	13,795	13,120
- India	6,085	5,980	6,715	7,525	10,495	12,600
- United States	3,140	3,600	3,705	3,890	3,920	4,010
- Nigeria	1,470	1,765	2,700	2,970	3,730	4,555
- Malaysia	1,440	1,335	1,105	960	1,175	1,315
- Hong Kong	1,020	1,060	985	915	1,045	1,075
- Saudi Arabia	340	390	470	565	580	765
- Thailand	1,135	1,235	1,330	1,380	1,550	1,660
- Pakistan	965	1,590	2,465	2,765	3,255	3,185
- Canada	1,070	1,125	1,250	1,290	1,385	1,555
- <b>All countries</b>	<b>46,775</b>	<b>53,210</b>	<b>55,065</b>	<b>55,115</b>	<b>62,930</b>	<b>66,265</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 7: Taught Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to taught postgraduate courses. Source: Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
<i>STEM:</i>	
- China	157%
- India	-4%
- United States	121%
- Nigeria	317%
- Malaysia	0%
- Hong Kong	-8%
- Saudi Arabia	419%
- Thailand	109%
- Pakistan	22%
- Canada	105%
- <b>All countries</b>	<b>73%</b>
<i>Non-STEM:</i>	
- China	205%
- India	92%
- United States	53%
- Nigeria	328%
- Malaysia	33%
- Hong Kong	19%
- Saudi Arabia	408%
- Thailand	165%
- Pakistan	204%
- Canada	35%
- <b>All countries</b>	<b>106%</b>
<i>All subjects:</i>	
- China	194%
- India	39%
- United States	63%
- Nigeria	323%
- Malaysia	17%
- Hong Kong	10%
- Saudi Arabia	413%
- Thailand	154%
- Pakistan	107%
- Canada	50%
- <b>All countries</b>	<b>96%</b>

**Table 8: Research Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
<i>STEM:</i>						
- China	720	1,060	1,070	995	880	840
- India	315	400	375	365	405	380
- United States	225	245	250	210	300	255
- Nigeria	90	95	130	130	175	155
- Malaysia	420	315	220	220	395	575
- Hong Kong	45	70	70	55	65	55
- Saudi Arabia	120	115	145	155	195	210
- Thailand	125	160	135	190	190	170
- Pakistan	100	120	160	180	340	340
- Canada	85	90	100	105	85	105
- <b>All countries</b>	<b>4,220</b>	<b>4,660</b>	<b>4,660</b>	<b>4,620</b>	<b>5,445</b>	<b>5,430</b>
<i>Non-STEM:</i>						
- China	270	410	405	370	395	300
- India	120	110	100	100	105	110
- United States	595	635	690	690	705	685
- Nigeria	50	75	75	100	75	85
- Malaysia	175	125	105	75	140	190
- Hong Kong	165	130	95	70	70	80
- Saudi Arabia	55	60	75	75	105	85
- Thailand	85	110	80	100	95	75
- Pakistan	40	45	50	55	75	115
- Canada	170	220	210	235	205	215
- <b>All countries</b>	<b>3,570</b>	<b>3,830</b>	<b>3,650</b>	<b>3,575</b>	<b>3,805</b>	<b>3,895</b>
<i>All subjects:</i>						
- China	995	1,470	1,475	1,365	1,275	1,140
- India	430	510	480	465	510	490
- United States	820	880	945	900	1,005	935
- Nigeria	140	170	210	230	250	245
- Malaysia	595	440	325	295	535	770
- Hong Kong	210	195	165	125	135	135
- Saudi Arabia	175	175	220	230	300	300
- Thailand	210	265	215	290	290	245
- Pakistan	140	165	205	235	415	455
- Canada	255	305	315	340	290	315
- <b>All countries</b>	<b>7,790</b>	<b>8,490</b>	<b>8,310</b>	<b>8,195</b>	<b>9,250</b>	<b>9,325</b>

*All figures rounded to the nearest 5*

Note:

1. Full persons equivalent are derived by splitting student instances between the different subjects that make up their course aim. If a student is taking combined subjects they are split proportionately between them.

**CONTINUED: Table 8: Research Postgraduate Entrants by Country of Domicile**

UK Higher Education Institutions—All entrants to research postgraduate courses. Source: Higher Education Statistics Agency

	<b>Annual Changes</b>
	<b>Between 2002/03 to 2012/13</b>
<i>STEM:</i>	
- China	83%
- India	20%
- United States	51%
- Nigeria	436%
- Malaysia	-14%
- Hong Kong	45%
- Saudi Arabia	249%
- Thailand	21%
- Pakistan	59%
- Canada	10%
- <b>All countries</b>	<b>50%</b>
<i>Non-STEM:</i>	
- China	72%
- India	17%
- United States	27%
- Nigeria	350%
- Malaysia	-42%
- Hong Kong	-68%
- Saudi Arabia	397%
- Thailand	31%
- Pakistan	166%
- Canada	27%
- <b>All countries</b>	<b>25%</b>
<i>All subjects:</i>	
- China	80%
- India	19%
- United States	34%
- Nigeria	404%
- Malaysia	-22%
- Hong Kong	-44%
- Saudi Arabia	296%
- Thailand	25%
- Pakistan	91%
- Canada	22%
- <b>All countries</b>	<b>38%</b>

19 March 2014

Government: James Brokenshire MP, Home Office and the Rt Hon David Willetts MP, BIS – Oral evidence (QQ 82-94)

**Government: James Brokenshire MP, Home Office and the Rt Hon David Willetts MP, BIS – Oral evidence (QQ 82-94)**

[Transcript to be found under Government: the Rt Hon David Willetts MP, BIS](#)

**Government: the Rt Hon David Willetts MP, BIS and James Brokenshire MP, Home Office – Oral evidence (QQ 82-94)**

*Evidence Session No. 7*

*Heard in Public*

*Questions 82 - 94*

TUESDAY 18 MARCH 2014

Members present

Lord Willis of Knaresborough (Chairman)  
Lord Dixon-Smith  
Baroness Hilton of Eggardon  
Baroness Manningham-Buller  
Lord O'Neill of Clackmannan  
Lord Patel  
Baroness Perry of Southwark  
Lord Peston  
Lord Rees of Ludlow  
Earl of Selborne  
Baroness Sharp of Guildford  
Lord Wade of Chorlton

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**Examination of Witnesses**

**Rt Hon David Willetts MP**, Minister of State for Universities and Science, Department for Business, Innovation and Skills (BIS), and **James Brokenshire MP**, Minister of State for Immigration and Security, Home Office

**Q82 The Chairman:** Good morning. I welcome our two Ministers to our final session of this inquiry into international STEM students. I apologise for the fact that our Chairman is in Australia at the moment drumming up business. I am standing in his stead as I chaired the earlier inquiry into this issue. I ask for the record that our two witnesses say who they are and what their responsibilities are, and then we will get straight down to business, if that is okay. If you want to make a statement, that is fine by the Committee, provided it is brief.

**Mr David Willetts:** I am David Willetts, Minister for Universities and Science, and I very much look forward to answering the Committee's questions.

**James Brokenshire:** I am James Brokenshire. I am the Minister for Immigration and Security, and I, too, look forward to the Committee's questions.

**The Chairman:** Thank you very much indeed. Could I start by asking a very basic question about how important you feel international STEM students are to UK universities, UK



Government: the Rt Hon David Willetts MP, BIS and James Brokenshire MP, Home Office – Oral evidence (QQ 82-94)

business and UK plc, and whether the Government send out to prospective international students the right messages about coming to the UK.

**Mr David Willetts:** Our STEM students from overseas are very important for our universities in several ways, partly because they are a source of revenue, and we should remember that to some extent what we are doing here is selling a service. I hope it is a high-quality service, but we are selling a service. In addition, having a mix of students at a university is one of the things that make it a stimulating and creative environment. There may be some disciplines at some points in time in which it is the overseas students who have kept the size up to ensure that a department is viable. There are lots of good things that overseas students, especially STEM students, bring to our universities. That is why, of course, they are very warmly welcome here, provided that they are properly qualified to benefit from British higher education.

**James Brokenshire:** I agree with what David has said. Certainly we regard STEM students as improving the research capacity of our universities, adding to their intellectual and cultural vitality and providing the opportunity to establish long-term productive relationships. I am certainly clear on the need for us to continue to attract international STEM students to this country. They are welcome to come to the UK to study and to ensure that we have that enrichment within our academic institutions. I believe that our processes and procedures are focused on ensuring that that is achieved.

**The Chairman:** But Minister, if I may say so, there seems to be a contradiction between the position of the Home Office and the position of BIS. BIS seems to spend a lot of its time sending out a very welcome “Britain is open for business” message, while the hard line that is coming from the Home Office is about radically reducing the number of immigrants coming into the country, and tying students into that total argument seems to send out a very hostile message. How would you respond to that?

**James Brokenshire:** That is certainly not the approach that we take at the Home Office. You are right that our focus is on reducing net migration from unsustainable to sustainable levels, but it is important to note that there is no cap on student numbers. We have put caps in place in other categories, but we have not done that for students, and I have been underlining that message very clearly. And while students are captured within the UN definition of net migration, and it is the NAO that produces those numbers, a number of our competitor countries take that self-same approach. But I am mindful of underlining that clear message about wanting to attract legitimate students to study in this country. Yes of course we have had challenges in the form of bogus students and some of the abuses that we have seen, but when you look at the number of visa applications that we are now starting to see, you can see that the number to universities has gone up by around 7%. I think there is a challenge in getting that message out, and I am keen, side by side with BIS, to underline some of these core messages.

**The Chairman:** Let me just follow that up with you, David Willetts. Is the issue not simply about getting more students to come and maintaining numbers but about the quality of them? You have consistently argued that it is the quality of the students coming here that adds to our academic mix, rather than just the numbers. How are we getting that quality?

**Mr David Willetts:** In terms of the communication effort—and I completely agree with what James said about that—one of the messages that I give abroad is that our higher education is a high-quality brand and experience. Finding yourself in a seminar with students from

overseas who do not have English at the standard necessary properly to participate in the discussion or to understand what is being said is unfair on the rest of the students, so we have a properly rigorous requirement for the level of English before they get on to the courses. The quality message can work to our advantage in the wider communication effort that James has rightly talked about.

**Q83 Earl of Selborne:** I would like to follow up the observation from Mr Brokenshire that there is a challenge in getting the message out. Clearly something has happened, because we have a Minister who has been flying the flag on behalf of universities, I think very convincingly. A lot of people recognise the brand that we have in the university sector in this country, yet there are perceptions, particularly in Pakistan and India—we have heard this time and time again—that we are not welcoming, and that the hassle of getting a visa to this country, even though there is no cap, compares unfavourably with some of our competitors, the United States for example, which presumably face exactly the same issues as we do. Would you like to comment on this perception, and why you think it is difficult to get the message out?

**James Brokenshire:** It is important to state the performance standards that UK Visas and Immigration now sets out for how it processes visas. That was one reason why we split the old UK Border Agency into three component parts: so there could be that greater emphasis and focus on delivery. It is also interesting to note that, yes, we have seen a fall-off in the number of students coming from India to this country, but when we look at China we see an increase. When you examine the studies on what attracts and motivates Indian students, Britain certainly features very, very highly in that regard.

In my new role as Immigration Minister, I am very keen to look at new ways in which we can work collaboratively with BIS and indeed with the sector itself. Tomorrow I am attending an event here in Parliament, organised through the University of Sheffield. UK Visas and Immigration has been working with the university to produce videos to explain the process to attract Chinese students in this case, but I am quite sure that we can apply that to other countries as well, and I am very keen to look at ways in which we can support that proactively.

**Earl of Selborne:** Have you done an analysis as to why these perceptions have changed? What are the logistical issues that are apparently deterring a number of applications from certain areas, although not all? Do you think it would be worth while doing this analysis? Do you think that the Home Office has a responsibility to try to change these perceptions?

**James Brokenshire:** I do take this issue on board, and I take quite seriously the need to address the perceptions that I think are out there that are not reflective of the way in which our immigration system operates, and to make sure that we welcome legitimate students and recognise the benefits that accrue to our economy as a consequence of that.

In terms of the analysis that could be undertaken, I am very happy to work with the universities and the sector more generally to understand the feedback. I know from visits that David himself has undertaken that work is being done, and I am sure he would wish to comment on this point about the feedback and the role perhaps of agents and the press in certain countries in delivering a message that does not reflect our ambitions and our approach. There are number of different ways in which you can approach this: through students, institutions, and in country in relation to agents and the press that may be

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operating there. We have been successful in countries such as China in getting that message out. In a country like India, it has been more challenging in recent times.

**Mr David Willetts:** I would just add that I have been to India twice with the Prime Minister and in other ways. The Prime Minister took a group of vice-chancellors on his visit last year, and one of the main things that we tried to get across in media interviews that he, I and the vice-chancellors did was absolutely that Britain welcomes legitimate students. But I completely agree that in the Indian subcontinent especially more communication effort is clearly required on that.

**Earl of Selborne:** Just one last point. One of the points that have been made to us not just this morning but at other sessions is that we really need a slightly different mindset. At the moment the first impressions from the moment you google “visas UK” onwards seem to be less than user friendly. It is quite clear what the objectives of the immigration policy are, and they might be perfectly acceptable, but you have to put yourself into the mindset of a student who does not understand some of the intricacies of our regulations at the moment. They are simply not user friendly, from the point about where you collect your visa from to the point about how you fill in the forms and the number of times the forms are returned because they are incomplete. These are the sorts of issues—logistical and unnecessary—that we are told, rightly or wrongly, are some of the reasons why we are having difficulties.

**James Brokenshire:** That is why I support the initiative, which I have highlighted, between UK Visas and the University of Sheffield to produce a clear video on the process for applying for a visa to study in this country, and why I am sure there are broader applications of that type of simple information to make it clear to students what those processes are and how to apply through them, and that is something that I am keen to support.

**Q84 Baroness Perry of Southwark:** I want to come back to the numbers, Mr Brokenshire, because I think you have an inherent contradiction in what is happening with the numbers and what the aspirations are. On the one hand, there is a clear aspiration on the part of the Home Office to cut the overall numbers, in which overseas students are included. At the same time you have vice-chancellors, BIS and in some instances the Prime Minister himself, working their socks off around the world. Mr Willetts himself has taken tremendous steps on missions around the world to recruit more overseas students. Yes, we want high-quality ones, we want good ones, we want ones who can speak good English, although some of the ones who do not speak good English when they first arrive are nevertheless brilliant students who other countries are competing for. It is a highly competitive game. We have all agreed, and you yourself have agreed, that overseas students are good for the economy of the universities and good for the economy of the country, but they are also good for our diplomatic relations. When you have foreign students studying for three, four, five years in this country, they go back with very warm and good feelings towards this country for the rest of their lives. If we are really working hard to try to increase number of these overseas students, for all sorts of good reasons, how can you at the same time include them in the immigration figures which you are trying to cut? Are you getting to the point where you are going to have nothing but foreign students in your immigration figures, which would be pretty tough on the rest of the British economy? I do think there is a huge anomaly in the way in which the Home Office is talking about reducing the overall levels of immigration. In my view, overseas students are not immigrants; they are contributions to the British economy. If you are bound and determined, as you have to be, I think, because of the NAO

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collection of statistics and the inclusion of them in those statistics, could you not, at least in the way in which you describe your policies and ambitions, separate them out and say, “Yes, we want to increase the number of overseas students, but at the same time we are trying to control the number of non-students coming into the country.”? I do not know, but I would guess, that of the 212,000 net immigration figure last year, 60% were students, so you might have succeeded in cutting immigration that is non-student immigration while the rest, we hope, is increasing. Sorry, that is a long question, but I feel very strongly about it.

**The Chairman:** Could we have a brief answer?

**Baroness Perry of Southwark:** Not a brief answer, a proper answer.

**James Brokenshire:** I will do my best. It is important to recognise, regarding the controls that we have put in place on that migration, that there was significant abuse in the student sector. It needs to be recognised and understood—

**Baroness Perry of Southwark:** But you have dealt with that through the highly trusted sponsor status.

**James Brokenshire:** We have taken a number of steps to put in place the highly trusted sponsors, to tighten up the system, to put the language checks in place and to do some of the interviewing that we do. That is recognised and it is comparable with other international countries. In the way that I have described and will continue to describe, and I know that my predecessors did too, we talk about controlling migration to sustainable levels, but we are also very clear in underlining our continued focus on attracting the skilled, the talented, the brightest and the best. It is those two sides of the overall policy that we bring together. If you look at some of the continuing challenges in the student sector, it has been in further education—the private colleges rather than the university sector—where we have reduced the number by around 700 sponsors as a consequence of the changes that we have made. As you will have seen from the recent “Panorama” investigation, though, there are still abuses there, in English language and in other ways. We have changed the system but there is still organised crime and other abuses. We therefore still need to focus on the student sector.

I welcome the increase that we have seen in visa applications to universities. I am not making any judgment between different sectors in that broad sense, but that 7% increase at universities is positive. It is investment in our universities. I do not see the contradiction in saying, “Yes, we have controls on migration but we should also be able to attract skilled students who want to come here to study and benefit from the fantastic education that we’re able to offer”.

**Baroness Perry of Southwark:** Even when they boost the immigration numbers?

**James Brokenshire:** No, well, it is about controlling that migration to those sustainable levels, from the hundreds of thousands to the tens of thousands, and the sorts of long-term pressures that that brings with it. If students stay for a number of years, that in itself puts pressure on things like public services in the same way in which all of us would use those as well. That is why it is right to recognise this within the overall statistics, and we will continue to look at the ways in which we can bring net migration down to sustainable levels, given that historically before 1998 net migration had been at around 80,000 per year but since 1998 has been no fewer than 140,000. There is a real challenge that we have to meet here.

Government: the Rt Hon David Willetts MP, BIS and James Brokenshire MP, Home Office – Oral evidence (QQ 82-94)

**The Chairman:** Every member of the Committee's buzzer has lit up. You cannot see or hear them, but I can.

**Q85 Lord O'Neill of Clackmannan:** Mr Brokenshire, you have referred to abuse and used the expression "legitimate students". Do you have any evidence that in the STEM sector there has been significant abuse and that there are significant numbers of illegitimate students? We are finding that the drop in numbers, certainly in some of the postgraduate courses, and particularly the drop in Indo-Pakistani numbers, means that courses could be put in jeopardy, as could the long-term financial stability of departments. Are you aware of that? Do you have evidence that would justify it in respect of abuse and the legitimacy of the students who have come to this country over the past 10 years doing STEM subjects? Unless you do, frankly, your attempts to curb immigration numbers are having a deleterious effect on higher education.

**James Brokenshire:** I would point to the NAO report from 2009-10 that highlighted that up to 50,000 students may have come to work, not study—

**Lord O'Neill of Clackmannan:** Sorry, I am asking you specifically about STEM. That is what this inquiry is about. It is not about the great unwashed; it is about a particular group of very capable people who could be to the advantage of both the British economy and our higher education system. Do you have figures on STEM students?

**The Chairman:** That are current.

**James Brokenshire:** I do not have specific figures on STEM students, Lord O'Neill, but I would say that we have had to make the changes that we have to the student route. Again, I make the point about welcoming students to this country and to our universities. The steps that have been taken through our highly trusted sponsor status have significantly changed the whole picture, to the benefit of the education sector more broadly. That is why I support the changes that have been made, but equally I recognise the challenge that this Committee and others pose in ensuring that we telegraph a clear message externally, with BIS and others, on welcoming students to come and study STEM and other academic subjects at university.

**Lord O'Neill of Clackmannan:** Would you recognise that part of the problem with the Indian subcontinent is that English is the common language and that the press in both India and Pakistan takes a very close look at what is in the British press? If there are hysterical outbursts from the *Daily Mail*, the *Express* and other papers about problems regarding immigration, they are telegraphed across the whole of India and Pakistan. Alongside the difficulties of these applications and the like, that creates an image of the United Kingdom that is not conveyed by the British press in China or probably, for that matter, in Nigeria. We therefore need to be very careful about the loose language that is used and the manner in which this whole debate is conducted.

**James Brokenshire:** In our policies, we have given greater flexibility to universities, for example in relation to the secure English-language test. Universities have greater flexibility in satisfying the requirements, rather than the production of a specific certificate. We have therefore sought to differentiate between different sectors within the education sector. Our support for universities, giving them that greater flexibility, meets the points that you make. Yes, it is a challenge that we have in communicating that message clearly and effectively and getting across the underlying message of how we want to attract university students.

**Baroness Sharp of Guildford:** One of the items of evidence that we received indicated that both the number of changes and the uncertainty about what was happening have affected the perception abroad that it is difficult to get to the UK. Universities accept that there was abuse and that the highly trusted status and the language qualifications have cleaned, if you like, the situation. What we do not fully understand is why you have to keep turning the screw and making it tighter and tighter.

**James Brokenshire:** I suppose it comes to the point that I have already highlighted in this session. When we make changes to the system, others will seek to find other loopholes or look for other ways of exploiting the system that we have. The student route has historically—I am saying this in general terms rather than with reference to STEM—been abused, and we know that there are those out there who will continue to look at new ways to take advantage. That is why, fairly, in my role I have to examine appropriately, with evidence, the question of whether further changes may be appropriate if agreed across government. Equally, I have a responsibility in ensuring that that is communicated effectively, and that we work with the universities and the sector more broadly to make our offer externally as strong as we can. That is why there is scope for us to join up and work together to be able to project that in that way.

**Q86 Baroness Hilton of Eggardon:** Can I pick up your point about abuses, most of which are related to dodgy colleges? They did not apply to respectable institutions or universities, so using that as an excuse is not valid. The point that I particularly wanted to make related to subjects. We are looking at STEM subjects. We are told that the shortfall from India and Pakistan has been particularly in engineering, and this country desperately needs engineers, but that the shortfall has been made up by students from China studying management studies, which is of no use to us whatever. That is an important change in the balance of the sorts of students that we are attracting, and it seems to be directly responsible for the discouraging media publicity that has been directed at the English-speaking countries like India and Pakistan. That seems to be one of the most serious effects of your immigration policies.

**James Brokenshire:** I wonder if I might challenge that thinking, on the basis that we have seen other countries around the globe experience reductions in the number of Indian students more generally. I have not seen the specifics on how that breaks down into engineering or the specific STEM subjects themselves. Arguments have been put forward about the strength of currencies and whether that has been a factor as well. There is work that we can and should do, and we will continue to do it, on the Indian subcontinent in challenging some of the myths that have been put about and some of the misrepresentations of what our immigration system does and does not do. I am very keen to ensure that we are playing our role in making that case very firmly and strongly.

**Q87 Baroness Manningham-Buller:** Mr Brokenshire, you mentioned a continuing look at immigration policy and said that you see it as part of your role to recommend changes where they are necessary. What systems does the Home Office have for monitoring the effect of changes that have happened, thus learning for the future not to make similar changes that are going to be potentially counterproductive, which is our concern? What evidence is routinely collected on the effect of immigration changes after they have occurred?

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**James Brokenshire:** We continue to work with the education sector, through the Joint Education Taskforce, to share information and feedback on the impact of our policies. We will monitor, for example, the number of visa refusals—

**Baroness Manningham-Buller:** Sorry to interrupt but, just while you are on that point, could you give us an indication of what percentage of visas are refused? I am sorry; I know I am interrupting your answer to my wider question.

**James Brokenshire:** We do monitor this. For example, for the highly trusted status of a sponsor, that sponsor should have refusals at fewer than 20% to maintain that status.

**Baroness Manningham-Buller:** Roughly what percentage of refusals is the Home Office seeing at the moment?

**James Brokenshire:** I am not sure that I have those numbers specifically to hand.

**Baroness Manningham-Buller:** Could you let us have them?

**James Brokenshire:** I would be very happy to provide those data.

**Baroness Manningham-Buller:** Thank you. Sorry. I will let you go back to your answer.

**James Brokenshire:** I was trying to show what we do in monitoring that and why, for the assessment of sponsors, visa refusals are something that we analyse in order to ensure that the sponsors are doing their duties, and to see what more we may be able to do for institutions that are doing their job exceptionally well. That is something that we should continue to reflect on, along with whether the oversight regime remains appropriate in incentivising the positive steps that so many institutions have taken and the responsibility that they feel. It is that monitoring of refusals that we see. Obviously, the feedback that we get from the institutions themselves on their take-up rate is also part of the assessment that we continue to monitor on sponsors. The continuance in-course is another facet of the work on the sponsor regime. Constant assessments are being made, but it is not only about picking up on the specific data; what I am hearing from this Committee and from the sector more generally are some of the perception issues that are not necessarily grounded in hard data. That is why in working through the Joint Education Taskforce we have that as an important means of having that dialogue and feedback to inform our policy and that sense of co-regulation to meet the sector to understand the impact clearly.

**Baroness Manningham-Buller:** Obviously, the Committee is trying to differentiate between perception and reality. We have heard quite a lot of evidence that the practical reality for incoming students is in many cases pretty tricky.

**Mr David Willetts:** On this point, it might be helpful if I share some of the statistics with you. It is the case that in India we have had a significant decline in some STEM subjects. For 2008-09, computer science was down from 4,000 to 1,000 while engineering and technology was down from 4,000 to about 2,000. However, one of your Lordships said that on the Chinese side everyone was going into business administration. It is true that among Chinese students there has been a surge doing business studies, from 14,000 to 29,000. However, the number doing physical sciences is up: between 2008-09 and 2012-13 it went from 335 to 750. The number of Chinese students doing engineering and technology is up from 3,100 to 5,800, while computer science is up a bit, from 1,200 to 1,500. So the Chinese increase has not simply been in business studies; it has also been in some of the other areas that this Committee is focusing on.

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**The Chairman:** This, to be fair, was a specific piece of evidence that we had from a university that said that it had had a drop in medical sciences, and in fact had filled places with business students. It was a specific example.

**Mr David Willetts:** Through your formidable experts you probably already have access to these statistics, but I am very happy to send a note clarifying them for the Committee if that would help.

**James Brokenshire:** On the refusal point, the overall number is 8.9% in aggregate. That covers all institutions, but I will see what further breakdown we can provide to inform the Committee.

**The Chairman:** It would help if we could have that by country of origin as well. That would be useful.

**James Brokenshire:** I will find out what we can provide to inform your considerations.

**Q88 Lord Patel:** My question has partly been answered because Mr Willetts jumped in there and gave us some figures. Otherwise I was going to ask if he, representing the government department responsible for universities, had any comment on the discussion earlier about Immigration Rule changes and so on.

**Mr David Willetts:** As I said earlier, first, we are talking about government policy, where there is a shared responsibility across Whitehall; “seamless” is exactly the right word for it. I fully understand that the Home Office has operational responsibility for enforcing the policies on visas and such like. Equally, though, you have heard from the Home Office, and we completely agree, that we want to send out the message that Britain welcomes suitably qualified students. We need to get that across vigorously and at every opportunity. The difference between what is happening in China and what is happening in India is a great source of frustration for us. We clearly need to get the message across in India. As James said correctly, I think there were issues like the value of the rupee relative to the pound. If you look at several overseas markets, there was some fall in the number of Indian students, so it did not just affect the UK, but we need to work wholeheartedly to welcome back some of those Indian students, especially in some of those STEM subjects where there has been a decline.

**The Chairman:** Lord Patel, are you happy with that?

**Lord Patel:** Well, I get the message. I do not think I will get any further.

**Q89 Lord Peston:** I want to make sure that I did not mishear what Mr Brokenshire said. Did you say right at the beginning that you are convinced it is right to include students in the immigration figures? You did say that in terms, did you not?

**James Brokenshire:** The National Audit Office uses the UN definition and it includes students within that. That is the measurement that we use for net migration.

**Lord Peston:** So I heard you right. If you look in your dictionary for the definition of “immigrants”, students would not fit into it, but I am not suggesting that you have to base policy on what is in the dictionary.

**James Brokenshire:** It is independent of the Home Office. The NAO produces—



**Lord Peston:** I just wanted to make sure that I had understood what you had said. Baroness Perry asked you about how the system works numerically. I would like to conduct a thought experiment. I found the decline in the numbers from the Indian subcontinent particularly disturbing, but let us assume that by some miracle those numbers went back up again. Would it not then follow that either numbers of other students would have to be cut down or numbers of non-students would have to be cut down? That is a matter of arithmetic. Does that not follow inevitably? You cannot wriggle out of it, as it were. You have a given number. If one part of it goes up, the rest has to go down, and the rest are either other students or non-students. With the Government be quite content with that?

**James Brokenshire:** As a consequence of the reform, we have seen overall student numbers—I am talking about everything here: universities, higher education and private colleges—fall by around 34%. I suppose what I am saying is that we can look at the different parts of the education sector. Clearly our universities play a huge and important role. That is why I have made the statements that I have today: in order to underline our desire and focus to support students coming to study here at our universities. Of course there are different routes that you can take to come to this country, whether that is studying, through business or through family settlement, and indeed there is a differentiation between EU and non-EU migration, with the different challenges and levers that are available in respect of each of those routes. We seek to bring net migration down from unsustainable levels, as we would characterise it, to more sustainable levels so that is in the tens of thousands each year. I believe that you can establish the policy of reducing net migration to those levels while at the same time attracting the brightest and the talented through the university sector. I think that our policies are calibrated in the right way to achieve that, and I will continue to support activities in countries like India to see that we have legitimate students coming here to study at our universities.

**Lord Peston:** But I am still trying to clarify government policy. We are not discussing EU students at all, are we? We are discussing non-EU students.

**James Brokenshire:** I was merely characterising the overall approach in relation to the reduction in net migration.

**Lord Peston:** I understand that. All that I am trying to clarify—as I say, this is only a thought experiment, and I have no idea whether the situation will switch around and more Indians from the subcontinent will want to come here—is whether the Government would be perfectly happy, if more of them came in, for fewer of the others to be able to come in. That is the inevitable result of government policy. I am not arguing the merits here but trying to discover what it is.

**James Brokenshire:** That would be the overall balance in terms of how you would achieve the overall net migration number.

**Lord Peston:** The overall target, that is right. And you are happy to live with that?

**James Brokenshire:** Yes. As I said, I am happy to attract students to the universities sector as part of our focus on growth in the economy and our support to that.

**Lord Peston:** But they can come only if other students or non-students do not come.

**James Brokenshire:** I suppose there is equally the fact that as students leave as well, that would reduce our net migration in that way. It evens itself out over the cycle.

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**Lord Peston:** They are going to leave anyway, but they do not leave the figures. Most of those students are not immigrants in the sense of coming here to stay; they are here to study.

**James Brokenshire:** If they come here to study—there is a separate debate on post-study, which I am sure we can come on to—and if at the end of their studies they leave, they net off and that reduces net migration. It is that overall cycle as well that can be factored into how the policy works—therefore, students coming to study but equally students having completed their studies at the end of that time.

**The Chairman:** I think that you have made the point and it has been responded to.

**Q90 Lord Rees of Ludlow:** Perhaps we have already moved towards the question of post-study. We have heard about the importance of overseas students for universities and what they can do for them and the good will that that generates for the country, but the fact is that we want some of them to stay on. We need to make easy for them to do so. We had evidence from Sir Andrew Witty, for instance, who was very concerned not only about the perception of the UK abroad as being unwelcoming but about the four-month limit on how long students can stay after master's degrees as a big impediment to recruiting and maintaining in the UK potentially outstanding students who he would want to stay. Is the Home Office aware of these concerns?

**James Brokenshire:** We have certainly seen the statements that have been made to this Committee about the four-month period. We continue to believe that four months is a reasonable period for someone to secure a postgraduate job. Indeed, most employers would be seeking to recruit someone during their study period. It is therefore a question of appropriate time periods to use. In establishing the policy we set upon four months, and that is the current policy approach. We continue to review and look at the feedback, but it is still perhaps looking in that granular way upon the evidence rather than on the assertion that four months is insufficient.

**Lord Rees of Ludlow:** Are you influenced by the general opinion that it seems to be insufficient and that people like Sir Andrew Witty feel that we are losing out through this restriction? It is not just about what happens, of course; again, it is about perception.

**James Brokenshire:** We still have yet to see the evidence for the assertion. We would need to understand clearly that there were job offers that were not being taken up, or indeed if there were other factors on pay rates or whatever the case may be. I would just say that I am not sure the question is quite as binary in that sense regarding the time period, and there will be other elements or factors in play here.

**Q91 Baroness Manningham-Buller:** My question relates to Lord Rees's, but, really, I am asking it the other way around. Have you seen evidence that four months is fine, and perfectly good enough for us to be able to attract into employment the best STEM students in the UK?

**James Brokenshire:** I have certainly not seen firm evidence that it is either harmful or making a contribution. I am trying to say that we have the tier 2 route that allows for this four-month period on graduate-level entry at a particular salary level. That is the system that is in place. I should just make this point clear: there is no cap at all on that entry route. Whereas in the tier 2 route there is a cap, there is no cap on this route into graduate-level

employment. If I look at what the obstacles may be in preventing people from taking up that work, and whether it could be the four-month period, while I have heard some of the assertions, I have seen no evidence to suggest that that is borne out as a problem. If I look at the sponsorship side, because it is a question of getting a job with a tier 2 sponsor, I know that some people ask whether it is too difficult to become a sponsor and if that is an impediment. Again, when I look at the system that we have in operation, it costs around £500 to be a tier 2 sponsor, the application lasts for four years and filling in a form takes about 30 minutes. When I try to look objectively at the impediments or restrictions, given the settled policy, I am still not seeing the hard evidence to suggest that that is problematic in the way some are suggesting it might be. However, I remain open-minded to the evidence that may be presented.

**Baroness Manningham-Buller:** I am delighted to hear that you remain open-minded, as one of the Committee's concerns is what our competitors are doing. We are not the only country seeking high-class STEM students; many other countries are as well. If some of our main competitors give people a much longer period in which to find work, that alters the attraction, I suggest.

**James Brokenshire:** I suppose the challenge the other way that we were confronting when we came in was that we had extended periods of time when it was suggested that it would be that time period that would allow people to go into the graduate-level jobs. Actually, we saw students staying on for extended periods of time in low-skilled work, which, again, I do not think would meet your policy objectives in this Committee either. It was therefore for those reasons that we put restrictions in place around graduate-level entry. As I say, we will continue to reflect on the evidence that may be presented.

**The Chairman:** Could you look specifically at India? The evidence that we got was that not only were Indian students in particular self-funding in the traditional sense but that their parents and families were mortgaging themselves in order to send their young people to the UK. Without a real opportunity to work when they have graduated to be able to pay some of that back, they clearly will go elsewhere. Not all countries are the same in terms of the students who are coming; you mentioned the Chinese, who have quite a different culture in the way in which they support their students. I do not want an answer from you now, but would you look at that as part of this question?

**James Brokenshire:** If I might respond quickly to that, there is the issue of this being a student visa. Therefore, coming to study is the basis upon which the visa is granted. It is then at that second stage, on routes into employment, that it is right for us to look at the skilled and the talented and ensure that we are filling the skills gaps that are there. That is why the system is calibrated in that way. However, I recognise different countries and different routes to attract people to come to this country in the first place. There are differences in different countries. I hear the point that you make.

**Q92 Lord Patel:** I have a question about the international comparison that Baroness Manningham-Buller referred to. We have evidence that suggests that the United States, for instance, will give you a straight five-year visa. Australia has changed its regulations, so now you get another four-year visa. If we are going to compete for international students, particularly those who are keen to do post-study work after their courses, we are competing with these countries. What is the purpose in changing the regulation so that the period is four months, which seems a pretty short amount of time?

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**James Brokenshire:** When we look at the figures going back to 2009 on the post-study work visa, we see around 38,000 students being given post-study work. Access to the labour market was given unconditionally at a time when we were obviously in a position of high unemployment and pressures on our domestic job market, so there is a balance between on the one side seeing students being able to continue into work through a post-study work route and at the same time ensuring that there is a proper focus on the skills and the higher-level entrant who we want to attract into this country, rather than seeing lower-skill jobs being filled by graduate students when that could be done by our own domestic market. Therefore, I think there are other broader policy issues at play. It is important that we have the routes through post-study, which is why we made the changes that we made, which give people that chance through the PhD route and through professional training and internships following university. There is that mechanism as well. Therefore, those opportunities remain.

**The Chairman:** Mr Willetts, I am very conscious that apart from drinking lots of water—

**Mr David Willetts:** It is a very thirsty business sitting here.

**The Chairman:** If you do wish to make a comment, please feel free.

**Mr David Willetts:** I would emphasise that on the post-study work course, if they find a graduate-level job they are welcome to stay on, but these are all the points that we need to communicate.

**Lord Dixon-Smith:** Can I just ask a very simple question? We keep hearing about four months, and I am not quite sure what four months we are talking about. Does the four months commence when you might say that formal study and exams have ceased, or does it actually commence when the man receives his qualification—or not, as the case may be? From the point of view of an employer there is a fundamental difference, because employers will not start to consider people until they are certain that they are qualified? If the four months begins at the end of the course and it takes three months to get the results, it is actually very, very difficult for everybody.

**The Chairman:** David Willets, that question is made for you.

**Mr David Willetts:** I would have to say that I think it starts at the end of the course, and that is to enable them to have time to take their degree and all that. It does start at the end of the course.

**Lord Dixon-Smith:** In that case, Lord Chairman, I can see why some of the employers we have listened to have a problem.

**The Chairman:** Lord O'Neill, is your question on a similar theme, before I come to Baroness Sharp?

**Q93 Lord O'Neill of Clackmannan:** Yes, it is, to an extent. Mr Brokenshire, you have continually referred to the fact that you have heard that these are assertions, and that you do not have evidence for them. This is our seventh session, and I think it is fair to say that in all preceding six sessions we have been inundated by assertions on this issue. Therefore when we come to make our report, are we going to be giving you an amalgamation of a series of assertions, or are we giving you a body of evidence that you might be able take seriously? If you and your office have read the material that we have received, on a cumulative basis I am not quite sure what more assertions you need for it to become

evidence. Maybe it is just your use of the word “legitimate” and the fact that you put a pejorative tinge on it when it suits your purpose.

**James Brokenshire:** I will look fairly at the evidence that is produced by this Committee, and indeed at the recommendations, as you would rightly expect me to do for any Select Committee of this House. Obviously I have noted the comments made by a number of people who have given evidence to this Committee. I know that at least one person has suggested that it is not the Immigration Rules themselves that are the problem but the perception of them. I suppose one of the inherent challenges that perhaps all of us are grappling with here is the distinction between perception and reality, and if you made a change to the rules, would that still impact on the impression that may be there?

My immediate focus, as the new Minister in this role, is on going out and challenging those perceptions and to look at ways in which we can set the record straight and to explain precisely what our rules do and do not do. While obviously I will reflect on the evidence and the submissions that you have received and the report that you will no doubt make and the recommendations that you give. Certainly at this stage that is where I want to test and maintain my focus to see how we can puncture some of the bubbles that have been created around the system.

**Baroness Sharp of Guildford:** Can I suggest that one way in which you could puncture the bubble fairly effectively when you publish the statistics would be to publish separately the different streams that you have been talking about, so that instead of getting just the figure for net migration we know the numbers of students who are coming in relation to the total net migration figure? Similarly, as Lord Peston said, insofar as there is a secular growth in student numbers, we are going to see the net numbers of students within those figures increasing over time, and that would be a mark of success for our higher education sector.

**James Brokenshire:** I think I misspoke earlier on by referring to the NAO. It should be the ONS, the Office for National Statistics. The ONS data are quite comprehensive, and we are seeking to provide further detail on the different tiers of visa applications and how the contributions to net migration break down into different elements and what they actually look like, and I hope that that will assist and inform the debates and consideration of these elements.

**Mr David Willetts:** In terms of where the Government are on this and the Committee’s concern, I think we can assure the Committee, first, that the Government are not going to bring in a cap on international students. Some of the argument for taking them out of the definition was that higher education institutions were worried that if the numbers of overseas students grew, a cap would be imposed on them. In the Government’s document on international education, we say explicitly two very important things. First, we say that, “there is no cap on the number of students who can come to study in the UK and no intention to introduce one”, and we explicitly recognise, as James was saying earlier, that as this is a growing market, even if we simply maintain market share there are going to be more international students. In fact, we say, “We believe it is realistic for numbers of international students in higher education to grow by 15-20% over the next five years”. So we envisage a growth in the number of international students coming to Britain, and we are not going to impose any cap on that number as a result of the growth.

**Q94 The Chairman:** Before I leave this, can I just ask one thing? One reason why the Committee began this inquiry was because we recognised the huge importance of having more STEM graduates in our workforce, particularly in engineering and the physical sciences. Is there a case to be made, given the fact that we have seen at least flatlining and in some cases drops in some of the most strategic STEM subjects, for treating STEM as a separate group in your immigration policy, so that just as we do with our universities for strategic and vulnerable subjects we have separate categories for STEM subjects to encourage the brightest and the best to come here and to stay?

**James Brokenshire:** The Home Secretary has been very clear on seeking to simplify the immigration process rather than adding different layers of complexity to it, so I suppose innately starting from that policy standpoint and then segmenting it out would not fit the general approach that has been taken. Obviously extensions such as post-graduate extensions for PhD students through the doctorate extension scheme have more relevance perhaps to some of the focus on STEM than they may do to other routes of work, so it is possible that there may be greater emphasis on our extension scheme that offers there.

I will continue to reflect on these issues carefully, given the importance of STEM, which I recognise, to our economy, but perhaps complicating the system may then get back into some of the perception issues, challenge issues and clear communication issues that I want to confront. Certainly I remain open and I will reflect carefully on this general issue of STEM and the importance to our economy.

**Mr David Willetts:** I will make two quick points. First, of course, at the moment the latest reliable figures that we have are for 2012-13, which for UK students was a peculiar year because we had a forestalling. We had an artificial surge in 2011-12 and an artificial dip in the number of students in 2012-13. This affected STEM like other disciplines, but it actually affected STEM rather less than other disciplines. The 2013-14 figures are unusually low, and I am going to live dangerously and say that if this Committee summons me when we have reliable figures for 2013-14, I would expect them to show the number of UK-domiciled STEM students going back up. That is the first point.

Secondly, of course we should be able to recruit people with engineering degrees into graduate employment, but there is another challenge for us in the UK to do better on. I cannot remember whether this is relevant to this Committee or other Committees, but when currently only 6% of your chartered engineers are female, there are also challenges for us domestically in doing better and meeting the needs for more STEM students.

**The Chairman:** That is a point that Baroness Perry raised with our academics earlier. Baroness Perry, will you forgive me if I do not come back to you on that point?

**Baroness Perry of Southwark:** I think we have covered that question.

**The Chairman:** On that note, could I thank both our Ministers very much indeed for giving us your evidence this morning and entering into a really good dialogue with the Committee? Thank you both very much indeed.

## Government – Further supplementary written evidence

*Supplementary evidence provided by the Home Office following James Brokenshire MP evidence session on 18 March 2014.*

### Supplementary information

1. Thank you for the opportunity to appear before the Committee on 18 March. The Committee asked for information regarding the percentage of visas refused, broken down by country of origin which I undertook to provide. On 19 March the Committee requested further information from my officials on three areas:

- the data used to conclude that the number of university sponsored visa applications rose by 7% in 2013;
- available data on the number of international students choosing to study in other countries; and
- information on student migration policy changes that have affected international STEM students.

I have included information on these areas in my response.

### Visa refusal rate

2. The data in Table 1 provides a more detailed breakdown of the Home Office published statistics from ‘Immigration Statistics October-December 2013’ available at: [www.gov.uk/government/publications/immigration-statistics-october-to-december-2013/immigration-statistics-october-to-december-2013](http://www.gov.uk/government/publications/immigration-statistics-october-to-december-2013/immigration-statistics-october-to-december-2013).

**Table 1: Tier 4 and pre-PBS equivalent visas, main applicants, 2013, by nationality**

Nationality	Applications	Resolved	Issued	Issued %	Refused	Refused %	Withdrawn	Lapsed
China	63,168	63,340	62,040	98%	1,103	2%	196	1
India	14,856	15,454	12,693	82%	2,607	17%	143	11
United States	14,053	14,153	13,860	98%	220	2%	72	1
Nigeria	12,665	13,165	10,759	82%	2,339	18%	60	7
Hong Kong	9,666	9,666	9,644	99.8%	15	0.2%	7	0
Malaysia	9,043	9,015	8,987	99.7%	24	0.3%	3	1
Pakistan	7,231	7,606	4,314	57%	3,231	42%	59	2
Saudi Arabia	5,611	5,278	4,846	92%	410	8%	21	1
Russia	4,959	4,992	4,559	91%	395	8%	37	1
Thailand	4,863	4,957	4,872	98%	71	1%	14	0
Other nationalities	69,991	70,296	63,143	90%	6,666	9%	452	35
GRAND TOTAL (ALL COUNTRIES)	216,106	217,922	199,717	92%	17,081	8%	1,064	60

Note: Decisions made in 2013 may relate to applications made in previous years.

Source: Home Office Science

3. The data in Table 1 provides grant and refusal rates for Tier 4 & pre-PBS equivalent students in 2013 for the top ten nationalities responsible for the most decisions in 2013 and this table also includes a total for all countries worldwide.
4. We have used information based on published statistics to allow easier comparison. It does contain information on both the higher and further education sectors. As the university sector accounted for 80% of Tier 4 sponsored applications in 2013, we believe this provides a helpful indicator of the refusal rate in a way that is comparable with the published statistics. However it must be noted that in the university sector the refusal rates are likely to be lower than for Tier 4 overall, particularly for nationalities such as Pakistan which account for relatively higher shares of non-university applications.

### **7% increase in visa applications**

5. The Committee asked for further information about the 7% increase in visa applications from university sponsored applicants. The Home Office publishes immigration statistics quarterly and the latest figures for 2013 are available at:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/283682/before-entry1-q4-2013-tabs.ods](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/283682/before-entry1-q4-2013-tabs.ods)
6. The published statistics on Tier 4 visa applications using sponsor acceptances at UK HEIs during the last four years (2010 to 2013) show there has been an increase in each year, rising by 7% in 2013 compared to 2012 (from 156,629 in 2012 to 167,995 in 2013). For students sponsored by the Russell Group of universities, there was an 11% rise between 2012 and 2013.<sup>40</sup>

### **Data on students choosing to study in other countries**

7. The Committee also requested data on students choosing to study in other countries. The following data tables have been compiled by the Home Office using the available published data on the number of international higher education students.<sup>41</sup> I thought it would be helpful to show the rate of increase between 2008/09 – 2012/13 to show longer term trends.

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<sup>40</sup> The information on visa grants and refusals are collated from a worldwide system used to process millions of visas, whereas the data on sponsored visa applications is obtained from the sponsorship system operated within the UK which is why we can easily provide a breakdown on visa applications by sector. However, in order to prevent inappropriate access to individuals' visa application data (which can include personal data such as income for some visas), the two systems are not automatically electronically linked for individual cases, which is why we have provided the available information for grants and refusals for all of Tier 4 based on existing published quality assured figures.

<sup>41</sup> All data relates to students in higher education. Some data for the countries is not available or is not always available on a consistent basis and there are differences in time period, level of study and definition of foreign student should be taken into account when comparing. Caution should be exercised when comparing the following data: German and Australian data do not cover the same time period as other countries; data from France is not available for Indian students. While Australian data has been released on enrolments by nationality this does not include non-visa nationals and so are not comparable to the total international student enrolment data included in Tables 2 and 3. Data showing international student enrolments at UK institutions includes non-EU and EU students. Data sources for Table 2 to Table 5 are included at Appendix A.



**Table 2: Total international higher education student enrolment numbers**

	2008/09	2009/10	2010/11	2011/12	2012/13	% increase 2008/09 - 2012/13
UK	368,970	405,805	428,230	435,230	425,260	15
USA	605,015	623,119	647,246	679,338	724,725	20
Australia*	320,970	335,506	334,803	325,961	-	-
Germany	239,143	244,775	252,032	265,292	-	-
France	206,475	214,252	218,364	219,939	216,055	5
Canada	99,367	111,513	121,271	132,145	145,164	46

\* Note that Australia report on a calendar year basis e.g. in this table 2010/11 represents data from the calendar year 2011

**Table 3: International higher education student new enrolments**

	2008/09	2009/10	2010/11	2011/12	2012/13	% increase 2008/09 - 2012/13
UK	204,985	226,130	239,710	238,325	228,030	11
USA	200,460	202,970	214,490	228,467	250,920	25
Australia*	154,569	151,546	145,064	139,452	-	-
Germany	69,809	74,024	80,130	88,119	-	-

\* Note that Australia report on a calendar year basis e.g. in this table 2010/11 represents data from the calendar year 2011

8. We have also provided information on the number of Indian and Chinese students in Table 4 and Table 5 given the Committee's interest in this.

**Table 4: Total Indian higher education student enrolments by country of study**

	2008/09	2009/10	2010/11	2011/12	2012/13	% increase 2008/09 - 2012/13
UK	34,065	38,500	39,090	29,900	22,385	-34
USA	103,260	104,897	103,895	100,270	96,754	-6
Australia	28,020	21,929	15,391	12,625	16,732	-40
Germany	3,516	4,070	5,038	5,998	-	-

\* Note that Australia report on a calendar year basis e.g. in this table 2010/11 represents data from the calendar year 2011

**Table 5: Total Chinese higher education student enrolments by country of study**

	2008/09	2009/10	2010/11	2011/12	2012/13	% increase 2008/09 - 2012/13
UK	47,035	56,990	67,325	78,715	83,790	78
USA	98,235	127,628	157,558	194,029	235,597	140
Australia*	79,465	93,686	98,175	94,378	92,248	16
Germany	24,746	24,414	24,443	25,521	-	-
France	-	21,031	20,752	19,701	19,829	-

\* Note that Australia report on a calendar year basis e.g. in this table 2010/11 represents data from the calendar year 2011

### **Immigration policy changes**

9. The Committee also requested information on changes to immigration policy that have affected international STEM students.
  
10. The Government committed to overhauling the student visa system. Following a period of consultation it was decided to phase the changes over a period of time to give the sector time to adjust. These changes include:
  - new English language requirements for students;
  - new higher sponsorship and educational quality requirements;
  - requirements to test students can support themselves financially;
  - restricting work entitlements to those studying at Higher Educational Institutions (HEI) and publicly funded Further Education colleges only;
  - restricting sponsorship of dependants to those studying at post-graduate level at an HEI on a course lasting 12 months or longer, and government sponsored students on a course lasting 6 months or longer;
  - restricting the time that can be spent in the student route; and
  - ending the Post Study Work route and replacing it with a more selective system.
  
11. From 2012 there have been only minor adjustments. These include:
  - the introduction of a 'genuineness' test – giving Entry Clearance Officers the power to refuse a Tier 4 visa if they are not satisfied the applicant is a genuine student; and
  - introducing new flexibilities for the brightest and best students to stay and work after their studies. Completing PhD students are allowed to stay for 12 months, the Graduate Entrepreneur scheme was introduced allowing those with a credible business idea to stay, and graduates can pursue professional training relating to their degree.

*3 April 2014*

## APPENDIX A

### Data sources for Tables 2 – 5

#### UK

HESA <http://www.hesa.ac.uk/content/view/1897/239/>

#### USA

Institute of International Education, Open Doors (2013) <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/New-International-Enrollment/2005-13>

#### Australia

Australian Government

<http://www.innovation.gov.au/highereducation/HigherEducationStatistics/StatisticsPublications/Pages/Students12FullYear.aspx> and [https://www.aei.gov.au/research/International-Student-Data/Pages/InternationalStudentData2013.aspx#Pivot\\_Table](https://www.aei.gov.au/research/International-Student-Data/Pages/InternationalStudentData2013.aspx#Pivot_Table)

#### Germany

Student Statistics Federal Statistical Office

[http://www.wissenschaftweltoffen.de/daten/index\\_html?lang=en](http://www.wissenschaftweltoffen.de/daten/index_html?lang=en)

#### France

Ministère de l'éducation nationale [http://www.education.gouv.fr/cid57096/reperes-et-references-statistiques.html#Données\\_publicues](http://www.education.gouv.fr/cid57096/reperes-et-references-statistiques.html#Données_publicues)

#### Canada

Citizenship and Immigration Canada

<http://www.cic.gc.ca/EnGlish/resources/statistics/facts2012/temporary/18.asp>

Professor Sir Peter Gregson, Cranfield University, Professor Helen Atkinson CBE, FREng, University of Leicester and Engineering Employers' Federation (EEF) the manufacturers' organisation – Oral evidence (QQ 53-63)

**Professor Sir Peter Gregson, Cranfield University, Professor Helen Atkinson CBE, FREng, University of Leicester and Engineering Employers' Federation (EEF) the manufacturers' organisation – Oral evidence (QQ 53-63)**

[Transcript to be found under Engineering Employers' Federation \(EEF\) the manufacturers' organisation](#)

## Duane Harry – Written evidence

This is a response to a call for evidence into the effect on international science, technology, engineering and mathematics (STEM) students of immigration policy.

I am an RIBA Part II Architecture Student from Trinidad and Tobago who is at present unable to complete Part III of the RIBA prescribed course for Architecture due to current immigration policies as it relates to work experience that is needed as part of the course of Architecture to complete Professional Experience and Development Record to attain an RIBA part III qualification.

1. 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?

One of the adverse effects of changes to immigration rules is that universities and employers are unwilling to provide sponsorship for me as an Architecture student to complete the Professional Experience and Development Record needed for the attaining of RIBA Part III qualification. As a result I have had to leave the United Kingdom without the opportunity for completing the Architecture course as currently prescribed by the RIBA.

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

Yes, reforms to the immigration policy will limit the competitiveness of the UK higher education institution in attracting international STEM students, as it becomes more know that students pursuing vocational courses encounter difficulty in the completion of their chosen course with reference to the attaining of relevant visas. As such prospective students may choose to pursue studies elsewhere.

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

It has been my experience that the mechanisms that are currently in place are not efficiently or effectively communicating the rules to all of the stakeholders, be it prospective international students, universities and accrediting organizations. In my own circumstance I believed that I would have been able to attain sponsorship from my university to continue as a student gaining Professional Experience. However this did not come to fruition.

*20 February 2014*

## Higher Education Funding Council for England (HEFCE) – Written evidence

### Introduction

1. HEFCE is a non-departmental public body responsible for distributing public money for higher education to universities and colleges in England, and for ensuring that this money is used to deliver the greatest benefit to students and the wider public. HEFCE is the largest single source of funding for English higher education, but universities also have a range of other income sources, including student fees, endowments, business and public sector contracts, and research income from charities and Research Councils. In 2013-14 the total HEFCE grant allocated to universities and colleges is £4.47 million, within which £2.3 million is devoted to teaching, £1.6 million to research, and the remainder to capital, knowledge exchange and discretionary investments. Further details of these allocations are available at [www.hefce.ac.uk](http://www.hefce.ac.uk).

2. HEFCE funding for teaching is provided to institutions in relation to HEFCE-fundable students, which in broad terms means HE students domiciled in the UK or another EU country. It is not intended to support overseas students. Nevertheless, HEFCE has an interest in the volume and nature of provision for international students at English HEIs: as the lead regulator for the HE sector in England we must understand the impact of this activity, for example on the focus and nature of provision for, and experience of, home and EU students, on the health of disciplines, and on the finances of higher education institutions. The past decade has seen increasing numbers of EU and overseas students, particularly at taught masters level, and we aim to monitor the risks and opportunities arising from this.

3. International student fees provide an important stream of income for UK HE. Our most recent report on the financial health of the HE sector<sup>42</sup>, which was based on analysis of sector financial forecasts for the period 2012-13 to 2015-16, noted that institutions anticipate continued growth in fee income from overseas (non-EU) students, despite the changes in visa regulations introduced from 2011, but there is a risk that growth will not materialise at the levels forecast. These students, however, provide far more than fee income. They contribute to the intellectual, cultural and economic vibrancy of the places in which they study, some stay on to fill key jobs requiring specialist expertise, and others provide international networks for the nation, which are influential well beyond higher education.

4. HEFCE is legally responsible for ensuring that the quality of teaching is assessed in the higher education provision we fund. We do this by contracting the Quality Assurance Agency for Higher Education (QAA) to devise and apply ways of ensuring the maintenance of academic standards and assuring the quality of teaching and academic support. The English quality system takes into account the needs, engagement and support of all students studying both in the UK or in partner organisations through collaborative arrangements. In January 2012 the QAA issued a guidance document for institutions regarding international

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<sup>42</sup> <http://www.hefce.ac.uk/pubs/year/2013/201329/name.83594.en.html>

students studying in the UK<sup>43</sup>, with the intention of establishing a UK-wide set of shared principles in support of international students' experiences. In addition, the UK Quality Code features a number of recommendations on other guidance and research which can be used as reference points or indicators for HE institutions, such as the International Student Barometer and the Higher Education Academy's International Student Lifecycle resource bank.

5. Public information about higher education is an important part of the quality assurance and quality enhancement process, but it also plays a role in helping students make choices about higher education study. The UK HE funding bodies are currently in the process of conducting a review of public information, including the National Student Survey and Unistats web-site, which will include some consideration of the needs of international students, in line with funding bodies' remits. At present, international students are included within the National Student Survey (NSS): although the published data make no distinction between UK, EU or international students, individual institutions can view their own results by domicile if they wish to do so. International students were included in the Destination of Leavers from Higher Education (DLHE) survey for the first time for the 2011-12 qualifiers survey, although as this was as part of a pilot the data has not been published.

6. HEFCE also has a role in protecting and promoting the collective student interest, by which we mean that we have an interest in any significant issue affecting a sizeable group of HE students at universities and colleges that we fund. This provides the context for the role we played in relation to international students at London Metropolitan University (see paragraphs 24 to 26).

7. This submission is focused on the Committee's first two questions<sup>44</sup>, which we believe are of particular relevance to HEFCE's work. We have concentrated here on the evidence and data relating to STEM, rather than issues relating to HEFCE's broader role, for example on finance and regulation, or indeed academic staff and research.

## **Section 1: data**

### **Subject data**

8. As part of HEFCE's work on strategically important and vulnerable subjects, we regularly publish data on student numbers by subject, with a particular focus on STEM. This was last published in July 2013. Annex A provides an updated version of our published data on HE students, split by level of study, subject and domicile. This includes data from academic year 2002-03 up to 2012-13, giving an eleven-year picture of the trends in student numbers by domicile and subject. Full details of the specification of this data are set out on the front page (not published here – can be found at: <http://www.hefce.ac.uk/whatwedo/crosscutting/sivs/stem/>).

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<sup>43</sup> <http://www.gaa.ac.uk/Publications/InformationAndGuidance/Documents/International-students.pdf>

<sup>44</sup> Question one: 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? Question two: 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?

9. The data provide details of entrants, rather than total number of students, as this is the clearest way of monitoring changes between years. Percentage changes are shown at the right hand side of each sheet, with the figures for the period between 2010-11 and 2012-13 indicating the changes that have taken place since 2010, which is the date flagged in the Committee's call for evidence. However, as noted above, the full datasets also give an eleven year time series, therefore showing longer-term changes.

### ***Undergraduate***

10. At undergraduate (UG) level, the largest volumes of international<sup>45</sup> student entrants are seen in STEM subjects (making up 26 per cent of all international entrants in 2012-13) and in arts, humanities and social science (AHSS) subjects (68 per cent of all international entrants in 2012-13). Since 2010-11, overall international entrant numbers have increased slightly (2 per cent): within this, STEM entrant numbers have fallen by 8 per cent, while in AHSS they have increased by 6 per cent. The picture is different if we consider the last eleven years: overall international entrant numbers grew by 54 per cent over this period, and within this, STEM entrants grew by 22 per cent, and AHSS entrants grew by 74 per cent.

11. Within UG STEM, the largest volumes of international entrants are seen in computer science, engineering and technology, and mathematics (respectively, 13 per cent, 44 per cent, and 18 per cent of all international entrants in STEM in 2012-13). Since 2010-11, international entrants in computer science have fallen by 38 per cent, and in engineering and technology by 6 per cent. In mathematics, international entrant numbers increased by 14 per cent over the same period (see table 1).

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<sup>45</sup> The tables refer to students in three classifications of domicile: UK, EU and Other International. 'Other international' includes those students who are not included in the UK or EU definitions.



HESA cost centre	Student domicile	2010-11	2011-12	2012-13	% change 2010-11 to 2012-13
Computer sciences	UK	16,926	17,307	13,850	-18%
	EU	1,164	1,208	843	-28%
	Other international	2,721	2,412	1,694	-38%
	<b>Sub-total</b>	<b>20,810</b>	<b>20,927</b>	<b>16,388</b>	<b>-21%</b>
Engineering and technology	UK	21,135	22,205	18,129	-14%
	EU	2,045	2,057	1,453	-29%
	Other international	6,218	5,871	5,824	-6%
	<b>Sub-total</b>	<b>29,399</b>	<b>30,133</b>	<b>25,406</b>	<b>-14%</b>
Mathematics	UK	9,779	9,981	9,027	-8%
	EU	699	737	606	-13%
	Other international	2,088	2,200	2,381	14%
	<b>Sub-total</b>	<b>12,566</b>	<b>12,918</b>	<b>12,015</b>	<b>-4%</b>
<b>Total STEM</b>	UK	86,258	91,124	77,385	-10%
	EU	5,777	5,920	4,526	-22%
	Other international	14,291	13,746	13,098	-8%
	<b>Sub-total</b>	<b>106,326</b>	<b>110,790</b>	<b>95,009</b>	<b>-11%</b>

**Table 1: UG entrant numbers in areas of STEM**

12. Within engineering at UG level, the biggest proportions of international entrants are in mechanical, aero and production engineering (31 per cent in 2012-13) and electrical, electronic and computer engineering (29 per cent in 2012-13). In mechanical, aero and production engineering there has been a broad trajectory of growth in international entrants in the last eleven years, with just a small decline of 1 per cent since 2010-11. Growth in international entrants in electrical, electronic and computer engineering has been less consistent over the eleven-year period, and there has been a decline of 16 per cent since 2010-11.

### ***Postgraduate taught***

13. Postgraduate taught (PGT) provision includes masters degrees, postgraduate certificates and postgraduate diplomas. Since 2010-11, the overall number of international PGT entrants has declined by 3 per cent: in STEM the decline was 20 per cent, while international entrant numbers in AHSS went up by 3 per cent. Again, the trends look different over a longer time series: since 2002-03, overall international PGT entrants grew by 84 per cent, and within this, STEM entrants went up by 53 per cent and AHSS by 96 per cent.

14. Within STEM PGT, the largest volumes of international entrants are seen in computer science and in engineering and technology. Entrant numbers in both these areas have fallen since 2010-11 (see table 2).

<b>Subject areas defined by JACS</b>	<b>Student domicile</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>% change 2010-11 to 2012-13</b>
Computer sciences	UK	2,360	2,250	1,865	-21%
	EU	755	765	695	-8%
	Other international	5,400	3,640	3,360	-38%
	<b>Sub-total</b>	<b>8,515</b>	<b>6,655</b>	<b>5,915</b>	<b>-31%</b>
Engineering and technology	UK	3,900	4,065	3,405	-13%
	EU	1,975	2,045	1,960	-1%
	Other international	8,825	7,970	7,775	-12%
	<b>Sub-total</b>	<b>14,695</b>	<b>14,080</b>	<b>13,140</b>	<b>-11%</b>
<b>Total STEM</b>	UK	12,825	12,770	12,625	-2%
	EU	3,865	3,900	3,825	-1%
	Other international	18,535	15,395	14,795	-20%
	<b>Sub-total</b>	<b>35,225</b>	<b>32,065</b>	<b>31,245</b>	<b>-11%</b>

**Table 2: PGT entrant numbers in areas of STEM*****Postgraduate research***

15. The volumes of international entrants to PGR programmes are much smaller than for either UG or PGT. Overall numbers of international PGR entrants went up by 8 per cent since 2010-11, and international entrants in STEM increased by 11 per cent in this period. Within STEM, engineering and technology has the largest volume of international entrants, which increased by 5 per cent since 2010-11.

***Country data***

16. The spreadsheet at annex B sets out data on international entrants to English HEIs by country, covering the 25 countries which send the most students (not published here – can be found at: <http://www.hefce.ac.uk/whatwedo/crosscutting/sivs/stem/>). Overall, China and India are by far the biggest sources of international students (all levels of study), but demonstrate quite different patterns of entrants in recent years: while the number of Chinese entrants increased by 24 per cent between 2010-11 and 2012-13, the number of Indian entrants fell by 45 per cent over the same period.

17. At first degree level, China sends more students to English HEIs than the six next biggest countries on the list combined, and numbers of Chinese first degree students have been increasing every year since 2007-08. India sends far fewer first degree entrants – Hong Kong, Malaysia and Nigeria each sent more in 2012-13 – and Indian first degree entrant numbers have decreased by 24 per cent since 2010-11.

18. At postgraduate (taught) level (PGT), China is again the biggest source of international students, with India in second place. Numbers of Chinese PGT entrants have increased by 44 per cent since 2010-11, while the number of Indian PGT entrants has fallen by 51 per cent in the same period.

19. Chinese entrants to English HEIs are fairly evenly split between UG and taught masters courses, but at each of these levels only 8 per cent of Chinese students are likely to be studying STEM programmes (see table 3).

<b>China</b>	<b>2010-11</b>	<b>% of total in 2010-11</b>	<b>2012-13</b>	<b>% of total in 2012-13</b>	<b>% change 2010-11 to 2012-13</b>
<b>Taught masters</b>	<b>18,740</b>	<b>50%</b>	<b>27,100</b>	<b>58%</b>	<b>45%</b>
STEM	3,155	8%	4,490	10%	42%
Arts, humanities, social sciences	15,350	41%	22,250	48%	45%
<i>Business, management and admin</i>	9,590	26%	14,105	30%	47%
Others	240	1%	365	1%	51%
<b>Other postgraduate</b>	<b>1,735</b>	<b>5%</b>	<b>1,825</b>	<b>4%</b>	<b>5%</b>
<b>Undergraduate</b>	<b>16,960</b>	<b>45%</b>	<b>17,475</b>	<b>38%</b>	<b>3%</b>
STEM	2,945	8%	3,170	7%	8%
Arts, humanities, social sciences	13,215	35%	13,675	29%	3%
Others	800	2%	625	1%	-22%
<b>Total</b>	<b>37,440</b>	<b>100%</b>	<b>46,400</b>	<b>100%</b>	<b>24%</b>

**Table 3: Breakdown of Chinese student entrant numbers by level and discipline**

20. In contrast, the majority of Indian entrants to English HEIs are to taught masters courses (75 per cent in 2010-11). Within taught masters, the split between STEM and AHSS subjects is more even than with Chinese entrants: 31 per cent are likely to be studying on STEM programmes, compared to 43 per cent in AHSS subjects (see table 4).

<b>India</b>	<b>2010-11</b>	<b>% of total in 2010-11</b>	<b>2012-13</b>	<b>% of total in 2012-13</b>	<b>% change 2010-11 to 2012-13</b>
<b>Taught masters</b>	<b>13,810</b>	<b>75%</b>	<b>6,705</b>	<b>66%</b>	<b>-51%</b>
STEM	5,700	31%	2,060	20%	-64%
Arts, humanities, social sciences	7,925	43%	4,535	44%	-43%
<i>Business, management and admin</i>	5,635	30%	3,115	30%	-45%
Others	190	1%	110	1%	-40%
<b>Other postgraduate</b>	<b>775</b>	<b>4%</b>	<b>715</b>	<b>7%</b>	<b>-8%</b>
<b>Undergraduate</b>	<b>3,945</b>	<b>21%</b>	<b>2,815</b>	<b>28%</b>	<b>-29%</b>
STEM	1,135	6%	825	8%	-27%
Arts, humanities, social sciences	2,655	14%	1,890	18%	-29%
Others	155	1%	100	1%	-35%
<b>Total</b>	<b>18,535</b>	<b>100%</b>	<b>10,235</b>	<b>100%</b>	<b>-45%</b>

**Table 4: Breakdown of Indian student entrant numbers by level and discipline****Other data**

21. Data released from the Council of Graduate Schools in the US shows that increases in first time international graduate enrolments in the US were most pronounced in engineering (18 per cent) and physical and earth sciences (17 per cent, includes mathematics and computer science)<sup>46</sup>. Growth in US postgraduate enrolments was also predominantly driven by students from India (up 40 per cent). In the US, STEM graduates are allowed to work upon graduation for up to 29 months<sup>47</sup>.

22. Another country with significant increases in enrolments, recorded in October 2013 (compared to October 2012) from both India and Pakistan (across all levels of study) is Australia. Higher education commencements from these two countries increased by 66 per cent (3,353 students) and 46 per cent (846 students) respectively<sup>48</sup>. There was 85.7 per cent growth in Masters by coursework commencements from India seen in the year-to-date October 2013 (compared with the same period in 2012). Cumulative growth in STEM Masters was around 80 per cent, with the largest volume in IT.

<sup>46</sup> Council of Graduate Schools (2013) 'Findings from the 2013 CGS International Graduate Admissions Survey; Phase III: Final Offers of Admission and Enrollment', page 11, [https://www.cgsnet.org/ckfinder/userfiles/files/Intl\\_III\\_2013\\_report\\_final.pdf](https://www.cgsnet.org/ckfinder/userfiles/files/Intl_III_2013_report_final.pdf)

<sup>47</sup> Department of Homeland Security, <http://www.uscis.gov/sites/default/files/ilink/docView/FR/HTML/FR/0-0-0-1/0-0-0-145991/0-0-0-163040/0-0-0-164807.html>

<sup>48</sup> Australian Government, Australian Education International, [https://aei.gov.au/research/International-Student-Data/Pages/InternationalStudentData2013.aspx#Pivot\\_Table](https://aei.gov.au/research/International-Student-Data/Pages/InternationalStudentData2013.aspx#Pivot_Table)

23. Data from the Home Office on Entry Clearance Visas<sup>49</sup> issued in the period July to September 2013 suggests further decline in students from India (10 per cent, 955 students) and Pakistan (44 per cent, 1,715 students) compared to the same period during the previous year – although it should be noted that these figures are based on student visas for all levels of study in the UK, rather than just HE.

## **Section 2: Perceptions within the HE sector**

24. Through its engagement with the HE sector, HEFCE monitors early indicators of changes in both student demand and in institutional recruitment behaviour. In early 2013, HEFCE staff asked institutions about the position of overseas students with regard to immigration regulation and its impact on the HE sector. Institutions signalled a decline in applications from South Asia, which they largely attributed to the abolition of Tier 1 Post-Study work visas, both in terms of reduced demand for certain programmes and levels of study (such as PGT), and the reduction in applications from certain countries, most particularly from India and Pakistan.

25. HEFCE's engagement with the sector has identified a widespread perception that the revocation and subsequent reinstatement of London Metropolitan University's (LMU) Tier 4 sponsorship for non-EU students has had a damaging effect on the UK's reputation as a place of study for international students. The sector widely perceived that the announcement of the revocation in the international press sent an unwelcoming message to potential international students and some institutions experienced that directly on recruitment trips.

## **Risk to institutions and to students**

26. The timing of the decision to revoke LMU's licence in 2012 was made at a crucial point in the academic cycle, the busiest time in the year for recruitment and admissions, and had a significant effect on both students on staff. Approximately 2,600 students, many from India and Pakistan, were required to find other higher education courses and to pay for new Tier 4 visas within a three-month timeframe. In response to this risk to international students, the Minister for Universities and Science asked HEFCE to lead a task force to support the students affected. The task force also included representatives from BIS, Universities UK, UKBA, the NUS and LMU. Its aim was to support LMU to find suitable alternative courses with other higher education providers for legitimate and appropriately qualified students, so that they could continue their studies in the UK. In response to concerns raised by the task force, the Minister for Universities and Science created a fund of up to £2 million to help LMU international students who had reasonably incurred financial costs as a direct result of the revocation. Following agreement by the task force about the principles of the fund, a detailed implementation plan was developed and the fund opened to students on 1 October 2012, administered by HEFCE.

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<sup>49</sup> <https://www.gov.uk/government/publications/immigration-statistics-july-to-september-2013/immigration-statistics-july-to-september-2013#study-1>, Table be\_06\_q\_s: Entry clearance visas issued by category and country of nationality: Study

27. The fund received 409 applications for support from individual students who had been impacted by the UKBA issues at LMU, and was effective in delivering financial support to 360 students, enabling many of them to continue their studies in UK HE. Total payments were made (or were committed to pay in the future) of £1,354,803.

28. Beyond this specific issue, we are not aware of any HE institution whose financial viability has been put at risk as a result of changes in international student numbers. HE institutions are autonomous and free to determine the scope or nature of their provision: they regularly review their course offer and content in relation to student demand at home and overseas. At subject level, we are aware of the apparent reliance of some subjects on international students, particularly at masters degree level (for example, 78 per cent of all entrants to electrical, electronic and computer engineering PGT courses in 2012-13 were international) but we do not believe that there is any immediate risk to the continued availability of provision in particular subject areas at national level as a result of the mix of student domiciles. This will, however, require continued monitoring.

*20 February 2014*

## Imperial College London – Written evidence

### 1. Introduction

Imperial College welcomes the decision of the Lords Science and Technology Select Committee to conduct an inquiry into the effect of immigration policy on the recruitment of STEM students. This is an important issue for Imperial College, as we welcome a substantial number of high quality students to study here from one hundred twenty six (126) countries. Attracting such students creates substantial advantages for the UK, not only economically but in creating lifelong relationships with individuals who go on to hold senior positions across the world.

We support the evidence which the Russell Group has supplied to the Committee and fully endorse the proposal made that the Government should:

- Remove students from the proposed healthcare levy and reconsider proposals to introduce landlord checks of tenants' immigration status
- Introduce a longer post-study work period
- Reduce the cost of a student visa to ensure parity with key competitor markets
- Remove students from the net migration target

### 2. The recruitment of international STEM students

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?

*Many universities have reported a downturn in the number of students coming from India and Pakistan, though this has not been predominately in STEM subjects. International recruitment to Imperial College has grown steadily in recent years, with no noticeable downturn in any of the countries from which we recruit significant numbers of students. Our numbers from India and Pakistan have not traditionally been large,, but our recruitment from these countries does not appear to have been adversely affected by the recent policy reforms.*

*It is not possible to know if our international recruitment would have been stronger if the UK immigration system had appeared more welcoming to students in recent years.*

**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?**

*It is generally accepted across the sector that the drop in intake from India and Pakistan was directly connected to the removal of the post-study work visa scheme. This also coincided with a drive from countries such as Australia and Canada to attract more international students from these markets*

### 3. The impact of changes to the immigration regime

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

**ATAS policy and procedure**

*This is an issue of major concern. We have seen increased complication and delay in this process, and this is an issue that has negatively impacted STEM providers across the sector. At Imperial there is a concern that we have lost some applicants as a result of the problems encountered.*

*The Academic Registrars Council (ARC) has been in dialogue with ATAS / FCO representatives with a view to improving the current system. Key questions to be addressed are:*

- Clarification from the FCO on the rationale for which subject / programme areas are covered by ATAS - this can feel inconsistent, even arbitrary to universities and applicants, and is thus often perceived as unduly bureaucratic*
- Turnaround times - the necessity to have certification for each individual applicant before a formal offer can be made means the applicant experience can become protracted and subject to delay.*
- Streamlining the ATAS process - there appears to be room to re-consider the extent to which all students on the named programmes should be covered by ATAS, by looking at the possibility of exclusion based on other security and risk clearances; HEIs would welcome a review of the documentation detail needed by students but provided by HEIs, for example module descriptors, looking at how this is collected and accessed.*

**Removal of appeal rights and replacement with “Administrative Review” for visa applicants**

*Imperial has rarely used Administrative Review for refusals overseas, as it is too time-consuming for the student (who may end up missing course start dates) and in many cases it appears to have amounted to a rubber-stamping of the original decision. Students whose visas are refused while in the UK are in a slightly different situation: they may be half-way through their course by the time a refusal decision is made. We welcome the latest developments of a refusal reconsideration policy in cases of basic and indisputable errors by Home Office caseworkers, but if appeal rights are removed there is very little recourse for students whose visa is refused due to an error on the part of the university. It seems unfair that students will be unduly punished for errors due to circumstances beyond their control and of which they are blissfully unaware. There is a view that the lack of opportunity to take the case to an independent immigration tribunal could lead to an increase in litigation against universities.*

**Requirement for landlords / letting agents to check the immigration status of tenants**

*Many Imperial College students seek accommodation in the private sector and are already facing large deposit requirements (due to not having a UK based guarantor). The requirement for landlords to check immigration status will be perceived as another expression of international students not being welcome in Britain. We are also concerned that some landlords will not have the expertise required to discern a valid visa from an invalid one, and that students will be wrongly assessed. We have already undertaken extensive, rigorous assessment of the student’s immigration status prior to arrival and would argue that an exemption on this basis for students at universities like Imperial is reasonable.*



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

*Increased cost of application. The proposal for an annual charge for access to NHS services would add to the perceived barriers to study in the UK. There are suggestions that the cost to the NHS of properly managing this requirement will outweigh the sums of money charged to the students. Moreover, students do not place a disproportionate burden on the NHS, purely due to their demographic. If the plan is to add this charge to the visa application fee, there is a significant risk that it will be perceived as a disproportionate increase in visa application costs, and compare unfavourably with competitor countries. It may be that with sufficient notice the material impact of such a change would be negligible for Imperial. However, we are not aware that any research has been undertaken to assess the possible impact of this on student recruitment, and if a high charge is introduced at short notice, the reputational damage to the UK HE sector could be significant. It should be noted that this would be in addition to any other increase in fees for visa applications: all Tier 4 categories are already set to increase by 4% from 6<sup>th</sup> April this year.*

**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?**

*There is much data collection and analysis going on in the sector both by individual HEIs and also by related organisations such as the Russell Group and UUK. As has been picked up in previous reports, UK-wide data is published with such a large time-lag that it is not useful in enabling the sector as a whole to respond effectively to the impact of changes.*

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

*There is widespread concern that this is the case. The main thrust of concerns expressed via the media relate to perceptions: specifically that the changes that have been made present the UK as being unfriendly to international students. There are clearly mixed messages being delivered – the Home Office rhetoric on reducing immigration is in stark contrast to BIS and the Prime Minister’s statements that the UK is open for business, and open to international students. This appears to have been picked up most strongly in India, where it is reported that “Press coverage about British attitudes to international students has been damning” (see: <http://www.theguardian.com/education/2013/jan/07/visa-rules-deter-international-students>). This, as much as the reality of the changes, may well be the cause of the drop in students from India.*

*Perceptions are notoriously difficult to measure, but an attempt has been made by Hobsons to look at the importance of different factors in student decision making (see: [http://www.hobsons.com/uploads/documents/hobsons\\_international\\_student\\_decision\\_making.pdf](http://www.hobsons.com/uploads/documents/hobsons_international_student_decision_making.pdf)). Their report highlights the importance of Visas, in particular “88% of respondents told us that they may switch destination country if visa regulations are tightened”.*

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

*The College has effective mechanisms for communicating directly with international applicants. It is also able to make up-to-date information available to prospective students via the website and through direct in-country visits and briefings. It is developing more robust systems for communicating with prospective students who have enquired about study at the College. However, there are problems associated with the frequency of change and the relatively short notice notification of these, that often lead to a sense of disjointed communication that does not allow either students or HEIs adequate time process and understand without leading to extra delay or difficulty in the process. Additionally, the language of these notifications is often rather direct and not generally perceived as 'welcoming' by applicants.*

**Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

*In general, we do not think this is the case, but we do have experience of the impact of ATAS delays causing concern over recruitment to individual programmes. The current ATAS procedure may be preventing students from coming to Imperial, simply due to the delay in processing that has an inevitable knock-on effect on other admission and Tier 4 deadlines and requirements which are beyond our control, most recently at undergraduate level in Aeronautical Engineering.*

**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?**

*As around a third of our students are from outside the EU, there is a serious risk for the College that changes to immigration rules, or a perceived threat of changes, could have a material impact on our international student recruitment. To attempt to mitigate this risk, in so far as it is within our control to do so, the College has provided increased information and support to prospective students, applicants and current students with the visa process. In line with the majority of the sector, the College has identified that retaining our Highly Trusted Sponsor status is critical to the business model of the College, and has invested significantly in processes and measures so that the College is fully compliant with the Home Office requirements. However, whilst the 'business of compliance' has become increasingly complex and costly, it is recognised as an essential cost in terms of securing a sustainable approach to international recruitment.*

20 February 2014

## Imperial College Union – Written evidence

*“The establishment of an educational institution must not be merely national but international, its advantages being open to people of all nationalities”*

Prince Albert, Prince Consort to Queen Victoria; Patron of the Great Exhibition of 1851, which led to the foundation of Imperial College London.

### Submission in brief

1. Imperial College Union believes the Immigration Bill presents a direct threat to the UK’s popularity with international students, which in turn undermines the financial viability of our universities and our national research base. We call for holders of Tier IV visas to be excluded from its measures in order to minimise any economic harm this Bill may cause.

### Imperial College Union

Imperial College Union is the representative body for all 16,000+ students at Imperial College London. Regarded as one of the top twenty higher education students’ unions in the UK, we have been enhancing the education and development of our members since 1907. This submission is written by Imperial College Union on behalf of its members.

### Notes

In this paper, ‘International Students’ refers to higher education students who originate from outside of the European Union.

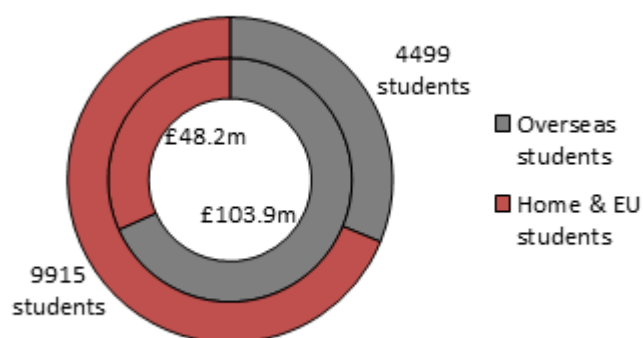
### Executive Summary

2. Imperial College London is one of the world’s leading higher education (HE) institutions, focusing almost exclusively on STEM subjects as well as medicine and business<sup>50</sup>. Since its foundation in 1907, Imperial College London has had a strongly international ethos, which is still evident in its student body and its strategic goals.
3. Of Imperial’s approximately 16,000 students, almost one in three originate from outside the European Union. This number rises when looking at doctoral research postgraduates, of whom 40% are from outside of the EU. The international nature of our student body means our finances are highly vulnerable to any shifts in international study patterns. The majority of Imperial’s academic fee income is from overseas students; in 2012/13, Imperial College London received £48.2m in academic fees and support grants from 9915 Home & EU students, but £103.9m from 4499 overseas students<sup>51</sup>.
4. *Imperial College London: International students as a share of the student population, and of total academic fee income*

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<sup>50</sup> Times Higher Education. *World University Rankings 2013-2014*. <http://www.timeshighereducation.co.uk/world-universityrankings/2013-14/world-ranking> [Accessed on 12/02/2014]

<sup>51</sup> Imperial College London. *Imperial College Statistics Guide 2012-2013*. <http://www3.imperial.ac.uk/planning/statistics/collegestatistics> [Accessed on 12/02/2014]



5. Imperial College Union, the representative body of all students of Imperial College London, strongly opposes the Immigration Bill as it currently stands. The Bill, according to the Prime Minister, is intended to “radically toughen up the way we deal with illegal migrants working in this country”. Instead, it will negatively affect the single biggest group of migrants who are in the country legally and are greatly beneficial to our economy: international students<sup>52</sup>.
6. We believe that the Bill’s provisions are not only directly harmful to our members who come from overseas to study in the UK, but also detrimental to the economic and scientific vitality of higher education across the United Kingdom - a central component of a healthy and growing economy.
7. We believe that the cumulative effect of reforms to immigration legislation over the past decade is to undermine international confidence in the UK as a premier destination for higher education and as a welcoming place for the world’s brightest minds to study, work and perform research. We believe a tipping point is approaching; soon, the UK’s weakening reputation as a premier global hub of high-quality institutions will be outweighed by our growing reputation as a hostile and expensive place to study.
8. The higher education sector is one of the United Kingdom’s most successful and respected export industries, with over 300,000 students from outside the EU studying in the UK in 2011/12<sup>53</sup>. The UK has had a strong position internationally for many decades, but its continued success as a premier destination for the world’s most talented students is not assured. Other nations are aggressively promoting their HE sectors; Australia<sup>54</sup>, Canada<sup>55</sup>, France and Germany<sup>56</sup> are targeting international students, while Asian countries are

<sup>52</sup> The Migration Observatory at the University of Oxford. Migration of non-EU nationals  
<http://www.migrationobservatory.ox.ac.uk/britains-70-million-debate/4-migration-non-eu-nationals-effects-recent-policy-changes-net-migration#kp1> [Accessed on 17/02/2014]

<sup>53</sup> Universities UK. *Higher Education in Facts and Figures*.  
<http://www.universitiesuk.ac.uk/highereducation/Documents/2013/HigherEducationInFactsAndFiguresSummer2013.pdf>  
 [Accessed on 12/02/2014]

<sup>54</sup> QS Top Universities. *New Government Promotes Incentives to Study in Australia*.  
<http://www.topuniversities.com/studentinfo/daily-news025/new-government-promotes-incentives-study-australia>  
 [Accessed on 12/02/2014]

<sup>55</sup> Nuthall, K. *As Part of New International Strategy, Canada Aims to Double Foreign Students*  
<http://chronicle.com/article/As-Part-of-New-International/144139/> [Accessed on: 12/02/2014]

<sup>56</sup> Becker, R. and Kolster, R. (2012) *International student recruitment: policies and developments in selected countries*. Netherlands organisation for international cooperation.

increasing efforts to retain students domestically<sup>57</sup>. Around the world, new and established universities are offering highly-regarded courses and research programmes, taught in English and directly competing with our institutions.

9. In a period of challenging demographic and market changes for UK HE, any measures that discourage students from choosing the UK should be rejected, and measures to develop the economic, social and cultural dividends our country receives from international students should be adopted in their place.
10. We are grateful to the members of the House of Lords Select Committee on Science and Technology for the opportunity to give evidence to their inquiry on this matter. In the following pages, we address a number of the specific questions posed by the Committee in their Call for Evidence.
11. We will focus particularly on the effect this Bill may have on Imperial College London and other internationally-regarded, research-intensive institutions.

### **Effect of Immigration Bill proposals**

12. Numerous research initiatives by various bodies have identified the negative impact of existing and proposed immigration legislation on the decision-making process of international students e.g. the National Union of Students (NUS) and UK Council for International Student Affairs (UKCISA). Visa simplicity and the possibility of post-study work are consistently identified as important to students when choosing where to study, as well as the UK's reputation as a welcoming place for international migrants.
13. Research undertaken by Imperial College Union locally, and the National Union of Students on a national scale, has demonstrated that many international students no longer feel welcome in the UK and would not recommend it as a place to study<sup>58</sup>. Over 50% of students - including 65.8% of doctoral research students - believe that the UK Government is not welcoming towards international students<sup>9</sup>.
14. We believe that two of the measures proposed by the Immigration Bill will particularly discourage overseas students from choosing to study in the UK: the charging of an NHS fee on arrival in the UK, and new regulations for private landlords and agents.
15. *Healthcare charges*  
In Part 3, Chapter 2 of the Bill, *National Health Service*, it states that there will be an annual charge on immigrants who remain in the UK to use the NHS. A figure of £150 has been suggested by ministers, after being revised down from £200. Although this may seem insignificant, for a PhD student with a family this could total thousands of pounds in extra fees over the course of their research. On a survey conducted on international students at

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<sup>57</sup> UNESCO map: Global flow of tertiary-level students <http://www.uis.unesco.org/education/Pages/international-student-flow-viz.aspx>

<sup>58</sup> National Union of Students *International students feel unwelcome in UK as immigration bill set to 'create new barriers' to study*. <http://www.nus.org.uk/en/news/press-releases/international-students-feel-unwelcome-in-uk-as-immigration-bill-set-to-createnew-barriers-to-study/> [Accessed on: 12/02/2014]

Imperial, 61% said that the introduction of a £200 annual fee would be a financial struggle for them to pay<sup>59</sup>. A survey run by the NUS on over 3000 students echoed these concerns, with 74% of non-EEA students saying the £150 charge would make it more difficult or impossible to study in the UK.

16. Arguments for this charge centre around the fact many international students do not pay the same taxes as home students, but international students do pay taxes such as VAT and contribute to the UK's economy with an estimated £7.9 billion a year<sup>60</sup>. STEM students are also examples of the 'healthy migrant effect': as predominantly young, healthy and relatively wealthy individuals, they contribute to the state through general taxation and yet place little burden on the NHS.
17. Universities already carry out stringent checks on student visas to prevent popular accusations of 'health tourism' which are often aimed at different segments of the immigrant population. The cost of such visitors has not been clearly ascertained by the government, but has been estimated in the regions of millions<sup>61</sup>. Applying this measure to students risks an income stream to the UK's economy measured in billions in order to reduce a cost measured in the millions.
18. From International Student Barometer data, 16% of Imperial students already feel their course isn't worth the investment of money<sup>62</sup>. Adding further costs to study at Imperial through an NHS levy will only increase this dissatisfaction.
19. *Regulations on landlords*  
Part 3, Chapter 1 of the Bill, *Residential Tenancies*, introduces new regulations for private landlords and letting agencies. The Bill introduces a penalty of up to £3000 for letting to individuals without the necessary immigration status or leave to remain, which does not penalise landlords for failing to check tenants' statuses but for renting to those in the country illegally. As a result, representative bodies for landlords and agents predict that many will resort to rejecting any prospective tenant they suspect to be foreign<sup>63</sup>, whether accurate or not. As visa checks are usually carried out by trained professionals, the same representative bodies have also raised concerns about placing the responsibility of carrying out these checks onto untrained landlords<sup>14</sup>.
20. Further complicating this matter is the nature of student visas. Private accommodation needs to be secured months in advance of arriving at university but often students do not have access to their visas at this time. Equally, students wishing to extend their visas for further study e.g. an undergraduate moving into a postgraduate taught (PGT) course, will only have a visa valid to the end of their undergraduate term of study when looking for

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<sup>59</sup> Imperial College Union Immigration Bill Survey

<sup>60</sup> Department for Business Innovation and Skills (2011). *Estimating the value to the UK of education exports*. [www.bis.gov.uk/assets/biscore/higher-education/docs/e/11-980-estimating-value-of-educationexports.pdf](http://www.bis.gov.uk/assets/biscore/higher-education/docs/e/11-980-estimating-value-of-educationexports.pdf) [Accessed on 9/10/2013]

<sup>61</sup> Chalabi, M. (2013) *Health tourists: are they really costing the NHS £2bn?* <http://www.theguardian.com/politics/realitycheck/>

2013/oct/22/health-tourists-costing-nhs-2bn [Accessed on 12/02/2014]

<sup>62</sup> International Student Barometer data for Imperial (2011/12)

<sup>63</sup> Public Bill Committee. 29 October 2013 - Immigration Bill. Archived at: <http://www.publications.parliament.uk/pa/cm201314/cmpublic/immigration/131029/pm/131029s01.htm>

accommodation. In the face of these concerns, it seems that international students and UK citizens of international origin will have their access to accommodation reduced and may be forced into property run by unscrupulous landlords who ignore the legislation. This already happens with deposit and housing quality legislation<sup>64</sup>.

21. As it stands, 30% of those surveyed at Imperial said that their status as international student has already negatively impacted their search for private accommodation and 75% of students felt dissatisfied with the proposed change<sup>10</sup>. The NUS survey found that 40% of surveyed students felt the landlord checks would negatively impact their decision to study in the UK.

22. *Appeals*

The UK Council for International Student Affairs (UKCISA) has raised concerns about the proposal to replace appeals for visa applications with administrative reviews. They state that many non-EEA students appeal against decisions from the Home Office to refuse visa extensions when completing degrees or moving to higher course levels – nearly 50% of appeals in these cases are upheld because the original decisions were unsound e.g. technical errors from Home Office staff<sup>65</sup>. UKCISA suggests that replacing appeals with administrative reviews will jeopardise the future of international students – these sentiments are echoed by Imperial's own International Office.

23. *Cumulative effect*

When asked to take into account the proposed NHS fee and landlord checks, 61% of international students said it would have discouraged them from applying to Imperial<sup>10</sup>. This is further supported by NUS data which found over 50% of non-EU students felt the UK government was not welcoming to international students.

**International student trends**

24. *Sector-wide*

As numerous commentators and industry bodies have stated, 2013/14 saw the number of international students coming to the UK to study at HE institutions decline for the first ever time, by 1%. Taking out Chinese and Hong Kong students, there was a decline of 4.5%<sup>66</sup>. This decline must be acknowledged as a separate phenomenon from any decline in international further education students, some of which is due to the closure of colleges considered to be exploiting international students and the visa system.

25. In 2011/12 it was noted that there was a much larger drop in STEM students than non-STEM students, which is of particular relevance to Imperial as a STEM university. One major reason for this decline was a 38% drop in Indian applications<sup>17</sup>; a study on Indian nationals considering studying abroad found that 91% of respondents were put off the UK due to

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<sup>64</sup> Shelter. Asserting authority: calling time on rogue landlords.

[http://england.shelter.org.uk/\\_\\_data/assets/pdf\\_file/0009/378873/Shelter\\_-\\_Asserting\\_authority\\_-\\_calling\\_time\\_on\\_rogue\\_landlords.pdf](http://england.shelter.org.uk/__data/assets/pdf_file/0009/378873/Shelter_-_Asserting_authority_-_calling_time_on_rogue_landlords.pdf). [Accessed on: 17/02/2014]

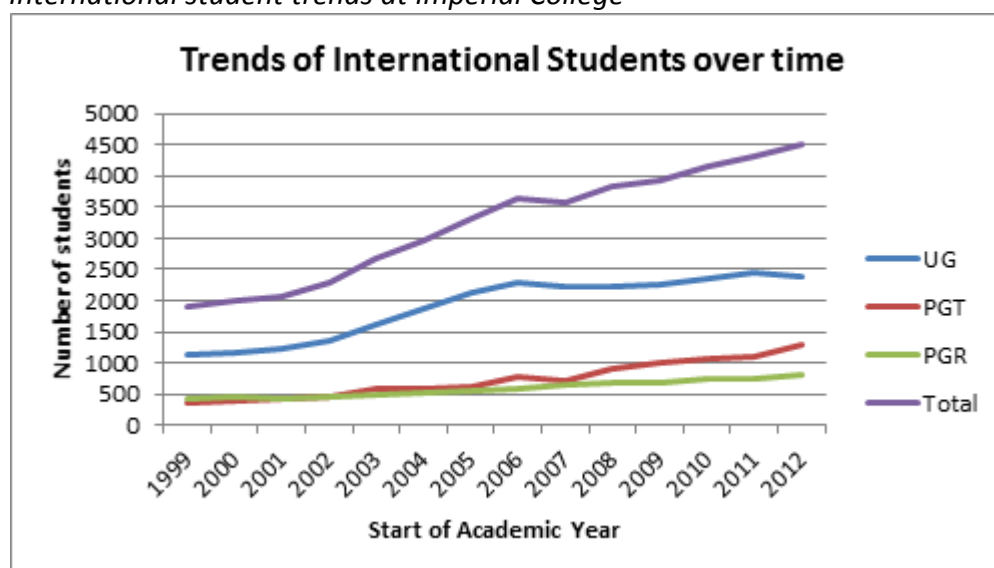
<sup>65</sup> UKCISA. Latest Briefing by UKCISA (January 2014) on the Immigration Bill. Available at: <http://www.ukcisa.org.uk/Info-for-universities-colleges-schools/Policy-research-statistics/Policy-and-lobbying/Immigration-Bill/> [Accessed on 12/02/2014]

<sup>66</sup> HESA Student Record in BIS 2013/b

restrictions on post-study work<sup>67</sup> – the result of other recent changes to Immigration policy.

26. Considering further that international students are more likely than the general student body to be studying STEM subjects<sup>17</sup>, and doing so at postgraduate level, the effects of a continued decline in international student numbers will be felt most strongly by the academic subjects and research communities considered fundamental to economic growth and development in the UK. The Russell Group and others regularly warn of the long-term economic effects of declining study of science subjects by UK students; this shortfall of scientifically-able UK graduates will not be alleviated by retaining international students if they are discouraged from studying here, and if those who do study here are unable to stay and work.
27. It is also worth noting that while the UK is placing barriers to international students, there has been an increase in English-speaking courses in Scandinavia and the Netherlands which have much cheaper fees compared with studying in the UK. Countries such as Canada and Australia are proactively recruiting international students whilst others encourage students to study domestically. In an international context, the UK will lose out if it fails to remain competitive; students already perceive the UK to be the most expensive country to study in with the fewest prospects for post-study work<sup>68</sup>; the new proposals may be the final straw for international students.

28. *International student trends at Imperial College*



29. The graph above<sup>69</sup> shows the trends in international student numbers at Imperial over time. Although the chart shows an overall increase in international students, the trend over later years is concerning as it shows the undergraduate (UG) numbers are levelling off or

<sup>67</sup> Ipsos MORI. *Survey of Indians Considering Study Abroad for IPPR (2013)* <http://www.ipsos-mori.com/Assets/Docs/Polls/ipsos-mori-ippr-indians-considering-study-abroad-september2013-topline.pdf> [Accessed 12/02/2014]

<sup>68</sup> HM Government (2013). *International Education: Global Growth and Prosperity*. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf) [Accessed 10/02/2014]

<sup>69</sup> Imperial College London. *Imperial College statistics guides 1999/2000 to 2012/13*. <http://www3.imperial.ac.uk/planning/statistics/collegestatistics> [Accessed on 12/02/2014]



beginning to decline after the 2011/12 academic year, which coincides with the last reformations to immigration policy. As a high proportion of international students continue on to further study with around 80% of those staying in the UK to do so, it is possible that the decrease in undergraduate numbers will translate into drops of postgraduate taught (PGT) and postgraduate research (PGR) numbers in the near future.<sup>70</sup>

### **Effect on economic viability of courses and research**

30. A simple analysis of student figures by origin and fee level demonstrates that international students are crucial to the financial viability of many of Imperial's individual courses - both undergraduate and taught postgraduate - and of entire academic subjects at an institution.
31. This vulnerability is especially strong in the UK's most highly-regarded institutions, as they are least exposed in terms of income to changes in Home/EU fees, and conversely most exposed to volatility in international fees.
32. *Undergraduate courses*  
Of Imperial's 15 course clusters, which broadly map to departments, six<sup>71</sup> derive over two thirds of their fee income from international students; a further four<sup>72</sup> rely in international students for over half of their fees.
33. Even the course least exposed to international fees, Medicine, relies on international students for 22.4% of its income. With Home fees set at £9,000 and International rates averaging £25,500, for every lost international student, two and a half home students are required.
34. The Russell Group has regularly pointed out that the combined teaching income for STEM subjects does not cover the average annual cost of teaching such resource-intensive subjects, meaning Home/EU students are taught these subjects at a loss. The continued supply of international students is essential to the basic economic viability of undergraduate STEM teaching in even the UK's most prestigious and over-applied universities.
35. Currently, Imperial can rely on its popularity as a means of filling available spaces, as all courses receive up to a dozen applicants per place; however, even with generous assumptions regarding economies of scale, an increased number of Home/EU students simply cannot make up for any shortfall in international students.
36. For every ten international students lost, 25 Home/EU students are needed to recover the financial deficit - meaning increased pressure on all of the institution's resources, such as lecture spaces, library resources, housing, and teaching staff levels. The economic reliance on international students is built into the physical and economic structure of our universities; College's lecture halls and tutorial rooms are not big enough to house enough Home/EU students to make the courses taught in them economically viable.

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<sup>70</sup> Imperial College London Careers Service *Requested data*

<sup>71</sup> Biotechnology, Materials, Electrical Engineering, Chemical Engineering, Mathematics, Civil Engineering

<sup>72</sup> Aeronautics, Mechanical Engineering, Chemistry, Biochemistry

37. *Postgraduate taught courses*

Of the twenty largest Master's courses available at Imperial, ten<sup>73</sup> derive over two thirds of their income from international students. Similarly to undergraduate courses, the presence of international students is a precondition for the sustainability of these courses.

38. Looking at figures for smaller Master's courses, more than one in four have an international majority in their enrolment. We estimate that up to one-third of Master's courses at Imperial are fully reliant on international students to remain economically viable.

39. *Postgraduate research*

High-quality research of the kind the Government wishes to encourage, and which is protected and emphasised in DBIS and HEFCE guidance, relies on being open and accessible to international movements of scientists.

40. In evidence to the House of Commons Home Affairs Committee regarding student visas in 2011, Professor David Wark (then at Imperial) summed up the potential effect of proposed and current immigration legislation on cutting edge research in the UK; we reproduce his words here:

41. *"...The more important point is that science is a completely international activity. I work in projects that span the globe and we more or less ignore national boundaries. The people who do this science flow back and forth... For the UK to continue to compete successfully in that, then our groups that are world leading have to be able to bring in the people from other countries who want to work in those groups... There is this constant flow of researchers back and forth. If we cut ourselves off from that we might stop people coming in; we will not stop the ones going out. The consequence of that is UK science will be weakened"*

42. All three modes of study available in UK higher education rely on international students, for their financial health as well as their scientific vitality.

**Conclusion**

43. The Government's own International Student Strategy calls for a 'warm welcome' to the UK for international students. Yet the legislative reality is the exact opposite.

44. International students already face high tuition fees, visa charges, and onerous requirements to pay 6-12 months' rent upfront, yet they are critical to the business model of our educational institutions. Restrictions on working while studying, the withdrawal of suitable post-study work routes, and the inclusion of students in wider public discourse about economic migration are making the UK an unattractive financial & social proposition for prospective applicants. The opportunity cost and risk this poses to our economy is significant, and unnecessary.

45. Building further barriers to international student attendance in the UK whilst the same barriers are being broken down abroad will only drive these students elsewhere. Given the

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<sup>73</sup> MScs in: Communications & Signal Processing; Advanced Chemical Engineering; Risk Management & Financial Engineering; Transport; Finance; Strategic Marketing; International Health Management; Economics & Strategy for Business; Public Health; Management

vast benefits these students bring to Imperial as a STEM institution and the UK as a whole, it does not make sense to penalise them further with the proposed changes in the Immigration Bill.

46. Grouping students together with entirely different categories of migrants is economically and socially harmful. Drafting and proposing legislation that negatively affects students while being aimed at other, smaller groups of migrants is short-sighted and will do nothing to promote the economic growth and international links that the UK needs in order for its people and its economy to prosper.

### **Recommendations**

47. We recommend the following actions be taken:

- Holders of Tier IV Visas be:
  - Excluded from Home Office net migration figures
  - Excluded from the Bill's measures aimed at landlords
  - Excluded from the Bill's measures aimed at healthcare costs
- Post-study routes to work be reinstated and expanded.
- The Government's promise to end continual reform and disruption to student visa legislation to be honoured.
- The importance of international students to science & research in the UK to be acknowledged and future policy proposals designed to protect and enhance the UK's attractiveness to applicants from around the world.

*19 February 2014*

## **Institution of Chemical Engineers (IChemE) – Written evidence**

IChemE is grateful for the opportunity to submit evidence to the Inquiry. IChemE is the leading international professional qualifying body for chemical, biochemical and process engineers with some 40,000 members throughout the world, somewhat more than half of whom are in the UK. Through our wide ranging interaction with universities in some 14 countries we are able to take a broad picture of factors affecting the health of our particular area of engineering and to compare the UK's position with that of its international competitors. The comments in this submission focus particularly on our own field of engineering.

### **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?**

The remarkable success of chemical engineering in attracting large numbers of young people has enabled numbers in universities to continue to grow over the past decade (197% increase in intake since 2001), and this success enables overall numbers to remain healthy. The strong rise is also true for international students: one of the largest UK chemical engineering departments reports a rise of approaching 25% in international applications for the 2014 entry. There is however great concern particularly about students from the Indian sub-continent, concern that is heightened by the very great importance of India to the UK. India should be a natural partner on account of the strong educational, linguistic, business and social connections that exist between the two countries, and is of course a hugely important investor in the UK. Within the chemical and process engineering industries India is an increasingly important player with a strong appetite for collaboration with the UK.

### **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?**

The main effect of current immigration rules appears to be in conveying a very negative impression of the attitude of the UK to international students and indeed to other talented migrants. Despite the sound work of the Migration Advisory Committee, without which the situation would be considerably worse, the stance taken very publicly by the Home Office is conveying the view that the UK does not welcome immigration of any kind and that access to the UK will be made difficult. It is not helpful that this is entirely at variance with other ministerial pronouncements stating that the UK is open for business or that the UK wishes to be the “best place in the world to do science”, the latter being an aspiration which depends crucially on the UK being open to – and able to retain - the best international students as well as the best academics, researchers and technology entrepreneurs.

Chemical engineering is a particularly globalised discipline, with the main employers being large international companies. Students are faced with strong competitive offers from

countries such as Australia which offer excellent educational standards and stronger prospects of being able to find work in the country following completion of studies.

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

In addition to the question of perceptions noted above, delays in obtaining visas are a major drawback. A leading UK university reports that in one department alone a dozen undergraduate students have had to defer their studies by a year as a result of these delays with a similar number of postgraduates in the same situation.

The ATAS procedure is clearly not working. It is under-resourced and should be properly staffed, more narrowly focussed, then explained more clearly to applicants and universities alike.

The opportunity for post-study work is crucial if the UK is to continue to be attractive to international STEM students and while some opportunities may exist via the Tier 2 process, this entails a degree of bureaucracy which is likely to deter companies, while for some jobs the required minimum salary levels may be problematic.

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

Universities have expressed concern in a number of areas, including the requirement for private landlords to police the status of international students, something that they will be singularly ill-qualified to do, and the proposed NHS surcharge which will add yet further to the unwelcoming image that the UK conveys to the world.

**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?**

As far as we are aware, the monitoring of these impacts remains insufficient and in any event would involve a significant time lag. We would favour a careful further examination of the impacts and a relaxation of immigration policies in respect of international students – e.g. their exclusion from immigration statistics - until those impacts are properly understood.

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

Undoubtedly yes, because of the negative perceptions that the UK has so effectively created and because of the delays associated with visa applications. These add to the high costs of UK education, adding up to a serious competitive disadvantage for what could be, for our

discipline, an extremely attractive export for the United Kingdom. In short, ill considered immigration policies are directly undermining one of the UK's crown jewels – STEM higher education.

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

No. Communication should be positive and clear, with the overriding message that the UK is and wishes to remain an ideal, friendly and welcoming place in which to study and to build a career in science and engineering. That is very far removed from the negative and inconsistent messages that are conveyed by some areas of Government and by the media.

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

As noted above, the ability to work after completion of studies is an important factor in making the UK an attractive destination for international students. It is not only important for the students themselves: if the UK is to remain attractive for areas such as engineering procurement and construction and the design and development capabilities which underpin our industry among others, UK companies must be able to recruit and retain in the UK the best talent available including students who have come to the UK to study. Equally, multi-national companies must be able to recruit staff intended for an international career and to have them spend the first period of that career in the UK as they continue their professional development.

**Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

Broadly no, because chemical engineering has responded extremely successfully to the challenge of “growing more of our own” engineers. Our campaign over the past decade has led to an expansion of existing chemical engineering degree programmes in universities and the opening of a succession of new programmes in a range of universities.

However, the quality of provision is jeopardised if the important source of income represented by international students is compromised through immigration policy deterring otherwise well-qualified applicants. Ours is a rapidly developing area of engineering and a relatively costly one to teach, thus requiring a substantial and sustained level of investment to ensure that courses remain at the leading edge.

Furthermore, we anticipate a growing and potentially serious problem in the supply of suitably qualified graduate research students. Shortly, the cohort of UK students emerging from BEng or MEng studies will be doing so with vastly increased student debt, a factor which we believe may deter many from remaining at university for postgraduate work when

well paid career positions are on offer. At the same time, visa restrictions continue to make it unnecessarily difficult, unattractive or costly for well qualified English speaking graduates from outside the EU to take up postgraduate opportunities here. Given the importance of good graduate students to any academic research community, these factors together pose a threat to the health of the subject in the UK.

**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?**

Subject to the comments above about quality, we believe chemical engineering is now in a healthy position in the United Kingdom provided that investment is continued at a satisfactory level. In a climate where securing this investment from public funds will be challenging, it would be folly to turn away high fee-paying international students who in many cases would very much wish to attend UK institutions if only visa policies and associated negative perceptions did not stand in their way.

*19 February 2014*

## **Jehan Karim – Written evidence**

I am a Canadian citizen and grew up in Toronto, Canada. In September 2004, I began my undergraduate medical education at King's College, University of London (formerly known as Guy's, King's and St. Thomas' School of Medicine, University of London). At this time, I was assured by the University that if I were to complete my full undergraduate medical education in the UK, I would always have the same training and employment opportunities as any UK medical graduate throughout my career. During my years in medical school, rumors emerged that new legislation might prevent international students from working in the UK. However, the University (and for that matter the British Medical Association) always maintained that these were unfounded. They explained that it would be illogical for the British government to spend years training students within the NHS system only to prevent them from working within the organization after graduation. The general feeling was that if anything, new legislation might make it more difficult for foreign medical graduates to practice medicine in Britain. Anyone who had completed their full undergraduate medical training in England would be encouraged to continue their training and career in the UK.

Upon graduating from medical school in July 2010, I applied and was successful in obtaining a training post in the medical Foundation Program in the South Thames Deanery. I was granted a two year Tier 4 Visa in order to undertake this employment. I worked as a Foundation Year 1 doctor at University Hospital Lewisham in London from August 2010 to August 2011. In July 2011, I was issued a full license to practice medicine in the UK by the General Medical Council. In August 2012, I was selected to undertake a prestigious Academic Foundation Year 2 Training post, which would allow me to focus four months, alongside eight months of clinical work, on researching clinical leadership and management strategies within the NHS.

During my foundation year training, I developed a passion for the specialty of Obstetrics and Gynaecology. My clinical supervisors felt that I would be a competitive applicant in Round 1 of the Obstetrics & Gynaecology specialty training program in the UK. I was given strong evaluations from all of my clinical supervisors and obtained an award for outstanding performance from the South Thames Deanery. I was an active participant in the research community and was invited to speak at an international conference held in the UK and to publish work in an international journal.

Prior to applying for specialty training in the UK in December 2011, I met with my educational mentor who had been appointed by the Deanery. We discussed that despite my clear intentions to continue clinical training in the UK, it might be wise for me to take time out at this point in my training in order to complete my Canadian Medical Board examinations (roughly equivalent to the British medical final examinations). These examinations are best completed as close to the end of medical school as possible. This would provide me with the option to practice medicine in Canada should I desire to do so in the future. The program director at the Brighton and Sussex NHS Trust, where I worked, arranged a meeting for me with a special careers advisor at the South Thames Deanery in order to fully explore the consequences that this decision might have on my prospects for specialty training. The careers advisor agreed that it made most sense for me to take a



period of leave from my training beginning in August 2012 and to apply to Obstetrics and Gynaecology training in December 2012. He assured me that this would have no repercussions for my clinical training.

However, what was unclear to both the advisors at the South Thames Deanery and to myself at this time was that the UK would change its immigration policies in 2013. Upon submitting my application for specialty training in December 2012, I was informed that I was no longer eligible to apply as a result of my leave of absence. Under the new legislation, the government will no longer grant me a work visa in order to pursue specialty training in the UK unless it is for a post which cannot be filled by either a UK or EU citizen. Specifically, I am no longer permitted to apply to round 1 of specialty training in any program in the country. The Obstetrics & Gynaecology training program is typically oversubscribed and has not required a 'Round 2' for applicants to fulfill available positions in several years.

The result of this change in immigration policy is that I am now treated as a 'foreign medical graduate' in every country around the globe, including in my own home country, Canada. This has made my job prospects as a doctor very difficult, despite my passion for clinical medicine. Applying for specialty training in Canada remains my best option for pursuing a medical career. However, this is extremely competitive. There are only three specialty training posts in Obstetrics & Gynaecology throughout all of Canada, which I am able eligible to apply to as a foreign medical graduate. I am currently applying for these posts as I still am very much interested in Obstetrics & Gynaecology, as evidenced by my current choice of Masters in Clinical Embryology at the University of Oxford. Realistically, my chances of obtaining a training post in my specialty of choice are statistically small. My chances of obtaining a specialty training post in any area of clinical medicine are also not encouraging. After nearly ten years of training, it is a distinct possibility that I will need to pursue a career outside of clinical medicine.

I own an apartment in London and have a large network of friends and professional contacts in the UK. In essence, I have built a life and a career in this country over the last ten years and feel very much a part of my community. It has been devastating to learn that I am no longer able to continue my training as a doctor within the NHS and to continue my life in this country.

*24 February 2014*

Philip Lockett, London South Bank University, National Union of Students (NUS) and Ian Bradley, The University of Manchester – Oral evidence (QQ 16-31)

**Philip Lockett, London South Bank University, National Union of Students (NUS) and Ian Bradley, The University of Manchester – Oral evidence (QQ 16-31)**

[Transcript to be found under National Union of Students \(NUS\)](#)

Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)

**Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)**

*Evidence Session No. 6*

*Heard in Public*

*Questions 64 - 81*

TUESDAY 18 MARCH 2014

Members present

Lord Willis of Knaresborough (Chairman)  
Lord Dixon-Smith  
Baroness Hilton of Eggardon  
Baroness Manningham-Buller  
Lord O'Neill of Clackmannan  
Lord Patel  
Baroness Perry of Southwark  
Lord Peston  
Lord Rees of Ludlow  
Earl of Selborne  
Baroness Sharp of Guildford  
Lord Wade of Chorlton

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**Examination of Witnesses**

**Professor Scott MacGregor**, Executive Dean, Faculty of Engineering, University of Strathclyde, **Professor Anthony Finkelstein**, Dean of the Faculty of Engineering Sciences, University College London, and **Professor Mick Fuller**, Head of Graduate School, Graduate School (Research & Innovation), Plymouth University

**Q64 The Chairman:** Good morning. I welcome our first set of witnesses this morning to this international STEM students inquiry on our last day of evidence-taking. Thank you all for coming. I apologise for the fact that Lord Krebs is absent this morning; he is away in Australia, so you will have to put up with me chairing the session. You are very welcome. If you want to make the briefest of statements, I prefer that not to happen, so please just say who you are for the record.

**Professor Scott MacGregor:** I am Scott MacGregor and I am the Executive Dean of Engineering at the University of Strathclyde in Glasgow.

**Professor Anthony Finkelstein:** My name is Anthony Finkelstein. I am Professor of Software Systems Engineering and Dean of Engineering Sciences at University College London. I am a

Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)

member of the Royal Academy of Engineering standing committee on engineering and training, and a member of UKCRC.

**Professor Mick Fuller:** Thank you for inviting me. My name is Professor Mick Fuller. I am the head of the graduate school at Plymouth University, I am the chair of the UK Council for Graduate Education and I sit on the European Council for Doctoral Education.

**Q65 The Chairman:** Thank you very much indeed. I will start with a general question. There has been evidence during the inquiry about a reduction in overseas student numbers, particularly in STEM, and it is STEM that we are particularly interested in. In some countries, there has been a sharp decline in applications and take-up. From your perspective, could you outline what you have experienced in your institutions and your disciplines over the past few years? Perhaps you could give a reason why there have been any of the changes that you have perceived?

**Professor Scott MacGregor:** From our perspective, we have certainly seen a decline in students coming from India and from Pakistan. Over the past two to three years, that decline has been approximately 40%. Working with our agents in these countries, we have seen that the students have the clear impression that the UK is not welcoming overseas students. From the agents' perspective, they are having challenges in being able to place students to the UK. There are lots of other markets where countries are very hungry for overseas students, and they are being directed elsewhere. This is not reflective of an overall downturn in the Indian market—in fact, the numbers from India are quite buoyant; it is just that they are not coming to the UK. Over the same period, we were still seeing growth in other areas such as China and Nigeria, so there is clearly an issue that is focused on India and Pakistan and their perception of the UK.

**Professor Anthony Finkelstein:** At UCL, we have not experienced any downturn. In fact, we have the reverse: we have seen an increase in students across the board from overseas and in STEM.

**The Chairman:** Is that in all STEM subjects?

**Professor Anthony Finkelstein:** That is in all STEM subjects. Perhaps it is better to make the following reflection: over the entirety of my career, every year, I have stared intently at figures for applications, from different countries and from different countries. You see all sorts of variations, and it is very difficult to truly understand when you look at those figures what is going on. Is it exchange rates? Is it particular news items? Is it a change in trends for particular subjects? After a long time staring at these things, I determined that the best thing I could do was to deliver the best, most attractive and most interesting courses to the potential students who were available to me. That is because I see myself as in the education business, in essence. If the UK fails to take that perspective and to offer the best entrance experience for students who wish to come and study in the UK, the consequences follow, as can be clearly seen in the national figures. Institutions such as UCL, Imperial College and others may be able to insulate themselves in some ways from that, but ultimately the market always tells.

**The Chairman:** Are you saying, then, that any downturn is down principally to the failure of institutions to live up to the yardstick that you have just outlined?

Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)

**Professor Anthony Finkelstein:** No, I am saying that it is a failure of the combination: of the entirety of the experience that the UK offers to potential students.

**The Chairman:** And is part of that not the welcome that we give to students from overseas, particularly in India and Pakistan, as Professor MacGregor has commented?

**Professor Anthony Finkelstein:** It is from the moment they google “UK visa”.

**Professor Mick Fuller:** Having looked through the written evidence that you have been sent and some of the transcripts that you have had so far, there is quite a lot that I would agree with in what has been presented to you. With my UK Councils hat on, I can say that we feel that a lot of institutions are reflecting the problem that you have identified, particularly from the Indian subcontinent, and I think the figures stand up to that. At my institution at Plymouth we have also seen a decline from that area of the world, the Indian subcontinent, particularly in electrical engineering and computing. Again, a decline of recruitment numbers of 50% is not atypical. However, I would say that for our postgraduate students—our PhD and research master’s students—we have seen the opposite trend. That is because in the past five years we have set about a strategy to double our research student numbers, from 500 to over 1,000, and we have just achieved that. So we have seen a positive growth in our international student numbers, particularly in STEM subjects. One of the reasons for that is that we have had a positive approach, which I will say more about later if there is time, in working in partnership with institutions in developing countries in particular, where we will make an offer to that particular institution that articulates students into our programmes, rather than sitting back and waiting for cold-call applications, if you like. Our particular growth has been focused on the Middle East, so our Middle Eastern students, coming particularly from post-conflict Iraq, from Saudi Arabia and from Egypt, have been where our growth has been. We have made more penetration into Saudi Arabia, too.

**The Chairman:** Professor Fuller, do you feel that the quality of the students that you are attracting, given some of these major dips, is declining?

**Professor Mick Fuller:** I would not say that the academic quality is declining. In fact, for many of our academic supervisors, who are perhaps taking up two, three or four research students from the international arena for the first time, there is a certain amount of nervousness, but mostly they are actually pleasantly surprised at how good those students are. That is on academic ability. There is definitely an issue associated with their English language ability and, in common with many institutions throughout the country, we are offering pre-session English language training to bring students up to the required level. I welcome the bottom that has been put into the market by the UKBA (the UKVI), saying that if you want a tier 4 visa you have to have an entry level of an IELTS equivalent of 5.5. That has helped us in some respects, because it gives students the clear message that that is what they have to achieve. If they do not have that level, they come on the pre-session course to get themselves up to the minimum requirements.

**Q66 Lord Wade of Chorlton:** To follow on from some of the comments that you are making, as you are suggesting that there is a range of issues that we need to consider here, how much does cost come into it? Are we in a position to attract particular students by the way in which we can offer them bonuses and benefits of some kind or another? Are the universities across the world that we are in competition with able to offer attractive deals to people to get the top-quality students that they want?

Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)

**Professor Mick Fuller:** I am happy to start on that. In terms of cost, there is a huge premium on the status of obtaining a qualification in the UK. It is seen as a gold-standard qualification, and many students will invest hugely in their own futures. Most of our students are sponsored by their Governments through scholarship schemes back home, and huge amounts of money are going into those schemes, but those students often fork out quite a lot of money for their student visa applications or their family visas, and they are prepared to make that investment. Typically, a student who is coming to study for a PhD and bringing their wife and one or two children is investing several thousand pounds in these applications. In terms of whether that puts people off, or whether people are going to be able to compete in that marketplace, it is clear to me from my European committee meetings that lots of our European mainland competitors are now offering PhD courses, even master's degree courses, that are delivered in English, and the thesis will be in English. The "Englishness" attraction has been put out there as an attractor for them.

**The Chairman:** Can you keep to this point about the price?

**Professor Mick Fuller:** Sure. They are not putting a huge fee on the studying, and they are offering a scholarship as well. They are quite a lot cheaper than the UK.

**Lord Wade of Chorlton:** So it comes down to money in many cases.

**Professor Mick Fuller:** Indeed.

**Professor Anthony Finkelstein:** It also comes down to the length of study. The UK enjoys a competitive advantage because of its one-year intensive PGT master's programmes, which is one of the key competitive advantages in our buoyant position regarding master's programmes.

**The Chairman:** Sorry, you are saying that we are in a buoyant position as far as taught master's are concerned? The stats do not seem to echo that, do they?

**Professor Anthony Finkelstein:** I speak purely from the point of view of my own institution. In a tight global economic position, one can expect that master's degrees are always going to be a squeezed portion of the market.

**The Chairman:** Professor MacGregor, could you briefly answer Lord Wade about whether you feel that price is the key component?

**Professor Scott MacGregor:** I do not believe that price is a key component. Over the past two to three years we have increased our fees by 30% and grown our international numbers, albeit not from India and Pakistan, by about 30% as well. If a student can afford to pay £15,000, they can afford to pay £17,000. I do not believe that we are going to maintain the quality of education in the UK by being the cheapest.

**Q67 Baroness Sharp of Guildford:** I have two questions, one of which is for Professor Finkelstein. The implication to some extent of what you were saying is that there are some institutions in the UK that, in order to make up the numbers that they may have lost from India, are pulling in students on other courses, such as business administration, where they can do so relatively easily, thereby in some senses lowering the standards. Am I right that you are certainly not doing that and that UCL can more or less take its pick, but that perhaps some other institutions are?

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Professor Fuller, the evidence that we received from the NUS indicated that the drop in numbers going to further education colleges and language colleges was very steep indeed—80%—and that there had traditionally been something of a follow-through from these colleges going on to universities in the UK, perhaps particularly the million-plus universities. I wondered whether Plymouth had experienced that at all and whether you could talk about that sector.

**Professor Anthony Finkelstein:** My assumption is that institutions will adjust their admissions to meet the market. Sometimes that means shifting numbers from subject to subject, within your capacity, and sometimes that means changing admissions standards, as long as you do not drop below what is practically teachable for the subject. That is straightforward management. Interestingly, I suspect, some of the differentials in the numbers that we are seeing between different subject areas arise, because of the different distribution of those subject areas across the institutions in the UK. I cannot give evidence, but I suspect that computer science seems to be relatively hard hit because it is much more broadly represented as a subject across the sector than, for example, high-cost areas such as chemical engineering.

**Q68 Lord Rees of Ludlow:** I would like to follow up on Professor Fuller’s remark about the competition from mainland Europe providing courses in English. To what extent does the recruitment depend on propaganda by individual universities abroad rather than on generic support for the UK education system?

**Professor Mick Fuller:** Shall I answer this first, Chairman?

**The Chairman:** I know you wanted to respond to Lady Sharp as well. Please answer both at the same time, one after the other.

**Professor Mick Fuller:** You mentioned the NUS and the drop in the number of further education students and asked whether that was an issue for us at Plymouth. This is associated a little with the second question, so I will try to wrap them together. We find that our strongest recruitment flow is through partnerships and our own agents, who are retained by us and are on commission. We work with an international organisation called Navitas, which has a presence on campus, and we bring students into both master’s and undergraduate courses through that route. There is a flow from what I would call the open market, the FE English language schools, and we look at those as what I would call a cold application. An application comes in, and if a student has the required English language certificates and levels, they enter the admissions process in the normal way. We at Plymouth have a large partnership network with FE colleges, and we work with some of those in those ways, but partnerships are our preferred model; we prefer to work in that way.

I do not think we would say that the point the NUS alluded to in its transcript when it was here has had a major effect on us. Of course it has had some, but we could not say exactly at what level. We prefer partnership, and that would be our model in the future, because we get trust, we build up confidence, we begin to guarantee flow, and it is more sustainable.

**Lord Rees of Ludlow:** Professor Finkelstein, does UCL bang the drum loudly abroad to get this strong influx of students applying?

**Professor Anthony Finkelstein:** I would say moderately loudly. We try to balance up two things: we make quite sure that our reputation is broadly understood abroad, and we

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engage in a programme of marketing. My sense is that students have an instinct to study a subject. They look around to choose the best place to study that subject, and they might have a range of potential global destinations in mind. Then it is very much a matter of their experience of securing a place and the offer that institution, in that country, is able to make to those incoming students.

My personal experience is that it is important also to remember that the applicants at undergraduate level are young people, and barriers that might seem to us as experienced adults as the sort of thing that we are ready to surmount on a regular basis press on young people much harder than we might judge reasonable.

**The Chairman:** Banging the drum is more difficult for Scotland at the moment, is it not?

**Professor Scott MacGregor:** They just have to bang it harder because of the distance.

**Professor Anthony Finkelstein:** They have other musical instruments at hand.

**Professor Scott MacGregor:** In general we have about 1,000 overseas students in the faculty at Strathclyde. They are more or less split 50:50 between what we call articulation programmes, which are run in partnership with overseas institutions that we have worked with for maybe the past eight to 10 years on specific programmes of study, and the RESPONSE mode. On an articulation programme, the students will study for two years overseas, and will normally join Strathclyde in the third year and complete their undergraduate degree. Quite often they will stay on for a master's or a PhD. The RESPONSE award is about raising your visibility, promoting the areas that you have, and your international reputation, working with agents as well. There is an element of beating a drum on that.

**The Chairman:** Lady Manningham-Buller, do you want to come in on this issue?

**Q69 Baroness Manningham-Buller:** Not on this particular one, but my question is related. Very briefly if you would not mind, because there is a lot that we want to get through, I would be grateful if each member of the panel told us why international students are important to you. What words would you use to say why STEM students were important to your university?

**Professor Scott MacGregor:** We have a different funding arrangement in Scotland. We are capped, and we do not have fees for students. International students provide a valuable resource that we can invest in our programmes to make them viable for our home students. They also provide us with the opportunity to build a research capacity and international relationships, which will leave a legacy for the institution.

**Professor Anthony Finkelstein:** UCL's letterhead says, "London's Global University", and that is what we intend to be.

**Baroness Manningham-Buller:** I declare an interest as chairman of Imperial in that case.

**Professor Anthony Finkelstein:** A global university means educating global talent, with a view to providing the people who can address big global challenges: challenges of food, water, security—things we all care about. That comes through providing educated students.

**Professor Mick Fuller:** I would echo those two points really. Basically they bring diversity to the institution, which is fantastic. They bring different ambition to the student body, which I think is also very good. They help us to build our research reputation and to extend that into



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partnership, as we have just heard, and, of course, they are in effect an unregulated market, so the university can expand into whatever opportunity is provided for us. That is a big opportunity.

**Professor Anthony Finkelstein:** Absolutely. They pay the bill, and every overseas student on a UCL engineering course basically turns round to the home student next to them and hands them £7,000 every year. That is what is happening.

**The Chairman:** We will leave that in the air at the moment. A number of people still want to ask questions on this, and we are fast running out of time, so can we be as brief as possible?

**Q70 Lord O'Neill of Clackmannan:** Professor MacGregor, do you find that the traditional Scottish four-year honours degree, which has now been paralleled to an extent in some English institutions, can be a problem for undergraduate recruitment from abroad in the sense that people have a four-year rather than perhaps a three-year course to take?

**Professor Scott MacGregor:** Thus far we have not found that to be a problem. A lot of our articulation agreements are with partners in England. We partner Manchester University and Bath University, and we are extremely successful in attracting good-quality students to Strathclyde. So I do not believe that there is a disincentive there. As you might know, we also have a five-year MEng degree in Scotland. Again, students overseas do not necessarily recognise an MEng and are very keen on doing a BEng undergraduate programme, and if they wish to move forward they take a separate MSc, which of course they can do.

**Professor Anthony Finkelstein:** Can I just confirm that it is also our experience that overseas students tend not to opt for four-year MEng programmes and opt instead for a BEng and a separate master's degree, with consequent visa implications, of course.

**Professor Scott MacGregor:** Just for clarity, there is one-year difference between England and Scotland.

**Q71 Lord Dixon-Smith:** We hear a great deal about the international competition for students, and I want to introduce a slightly different aspect of competition because we have heard nothing about it. How far do you work together to attract students as UK Limited, as you might say, and how far are you, as institutions, competing each other and therefore, perhaps, not using resources as efficiently as you might if you were all working together?

**The Chairman:** The question is basically about competing and not working together. Professor Fuller.

**Professor Mick Fuller:** Universities UK works on behalf of all universities in the country, and its international unit gives a consolidated front. The British Council also does a huge amount of propaganda-type work for us, putting our brand out there for UK plc, and I think it does a fantastic job, too.

In terms of how we work in consortia or otherwise, yes, there is definitely a degree of competition, but there is a huge amount of business, and that business is growing, so however you go about it you can find compatible partners that are similar to your own university and its aims, ambitions and mission. You feel comfortable partnering them and building that strategically, and that, as I said earlier, is our preferred model.

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**Professor Anthony Finkelstein:** Indeed. “Co-opetition” is the phrase I have heard. The important work of groups such as the Sterling Group should also be mentioned, which bring together engineering faculties across the UK with similar interests.

**Lord Dixon-Smith:** So you are saying in effect that any external person from whatever part of the world you would be likely to bump into would have a pretty similar approach to whatever he was interested in. There is no competition once you are, shall we say, beyond our national borders.

**The Chairman:** A yes or no answer.

**Professor Scott MacGregor:** Both. Of course there is competition, but there are also times when some of these strategic relationships are actually partnerships with universities in the UK. Some of Strathclyde’s relationships are like that. One of the benefits of that relationship is that when these agreements are being extended and evolved, you can bring key elements from different institutions to make it really attractive and distinctive.

**The Chairman:** Lord Peston, you have been very patient.

**Q72 Lord Peston:** I have two questions. One is about cost per se and the other is cost-related. If I can reflect on when I was an overseas student, Fulbright paid my return fare, the university gave me a fellowship that covered all fees, which were nominal in those days anyway, and some subsistence, one of the professors took me on to his research project and paid me, and the university gave me some teaching to do, so for the first time in my life, having graduated, I was rolling in money as an overseas student. Now, from your point of view, that has all changed. Universities are now in the overseas student business, from which they expect to make money. Am I right in interpreting what goes on in that way: that they expect overseas students to generate some net income—we heard evidence of this sort last week—so that you can have the courses and do other useful things that you want to do? Would that be a correct interpretation?

**Professor Mick Fuller:** I am prepared to start with that one, if you like.

**The Chairman:** Please be brief.

**Professor Mick Fuller:** International students pay the cost of the course that they come to study. For PhD students, the cost is still probably not enough, and the university helps to cross-subsidise all international and home students. On postgraduate taught courses, yes, there is a certain amount of cross-subsidy, because there you can expand the size of the intake, and the more you have the more viable the course becomes, but we do not go into the international arena to try to make money; we go in for other reasons.

**Professor Anthony Finkelstein:** My sense is that that interpretation is not entirely correct. I expect some PGR students to pay their costs and more, but they are also part of our research engine, which has other larger benefits. For example, I offer—let us put it this way—‘favourable deals’ to people who hold China Scholarship Council scholarships, which do not cover the full amount of the fee. I will do anything I can to get super-talented individuals to come here. I hope I do not leave them rolling in money, but I hope I do enough to get them here.

**Lord Peston:** I went from being skint to being able to pay my bills. That is what I meant.

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**Professor Scott MacGregor:** At undergraduate level, all overseas students pay their fees, and we use that resource to invest in undergraduate programmes for everybody's benefit. At postgraduate level there is a combination. Some courses are very international. Ocean and marine engineering is a very international course that can never be sustainable in its own right with home students, so we need to have a mix of students on that course to make it viable. At postgraduate level, just about all our overseas students have some form of scholarship or sponsorship. It changes as you move up the education level.

**Q73 Lord Peston:** My other question, which is cost-related, is whether you discern, either in your own institutions or others you know about, that because there must be some cost problem, students are moving towards more practical subjects that relate more to income-earning and away from pure mathematics, for example, which might not have the same practical element. Have you seen a change in what they want to study as a cost-related phenomenon?

**Professor Mick Fuller:** I have not seen that. I would say that the Governments who are sponsoring those students have set out in government policies how they want to develop STEM subjects, and they are still there. They were very practical courses in the first place. You need mathematics for driving your STEM subjects once you are in the development phase, so I would still consider that a practical subject.

**Professor Anthony Finkelstein:** Undergraduate programmes are driven by larger subject trends, so there has been a rise in mechanical and chemical engineering and a drop in electronic engineering, reflecting greater concern with issues such as energy and sustainability and a broader outlook like that. My sense is that PGT is quite vocationally driven. Students are doing taught master's courses because they see a specialist education as driving their employment possibilities. My father told me that doing a postgraduate research degree only decreased my chances of a higher income when I started it. He was right, and I suspect that that is the attitude of most people taking a PhD.

**Professor Mick Fuller:** Could I put a rider on that? I think that for international students it is the opposite: it is their guaranteed way to improve their finances once they get back home.

**The Chairman:** I am going to leave it there. Lady Perry, you have the last word on this question. Then we have to make up some ground.

**Q74 Baroness Perry of Southwark:** It is a really quick one. Staying with the money theme, I know that women in STEM subjects on the whole are always slightly underrepresented, but have you noticed any change in the gender balance? Are people sending fewer of their daughters than their sons?

**Professor Scott MacGregor:** I think there is a big increase in the number of women coming from China, for example, who are studying engineering. Perhaps that is a reflection of the one-child rule per family, where there is only one person to invest in, but still we are seeing those students picking engineering as opposed to some of the other subjects.

**Professor Anthony Finkelstein:** Rather ironically, I blogged this weekend and the blog was entitled "Flatline", which describes the current gender situation in engineering, which is basically that in everything we do the basic gender proportion has remained more or less unchanged, at roughly 14% at entry and 9% in the profession. It is very interesting that there are big national differences in this. You might see an effect because of those national and

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cultural differences, but they are at the margins. There remains a massive problem for the whole sector to deal with.

**Baroness Perry of Southwark:** Is the 9% figure for females?

**Professor Anthony Finkelstein:** In technical roles in the engineering profession, it is about 14% at entry across the core engineering and technology subjects.

**Professor Mick Fuller:** From our experience of recruiting from the Middle East in the past five years, we have been amazed at the proportion of women coming forward to study PhDs. We expected it to be 10% but it is much more like 40% to 45%. That shows the open-mindedness of the sponsoring agents, which are normally the ministries for higher education in those countries, which are adopting a diversity and equality policy at selection for scholarships. I am really encouraged by that.

**Baroness Sharp of Guildford:** That increase has come from international students?

**Professor Mick Fuller:** Yes. It may be reflected better there than it is among domestic students.

**The Chairman:** We have had a terrific run at the first question today, so we are going to have to make up a bit of ground.

**Q75 Lord Rees of Ludlow:** I would like to focus a bit more on the Immigration Rules and the impact that they are having. Could you comment on how important they are compared with other effects, and try to distinguish between the effects of the rules themselves, the perception of the rules in overseas countries and the implementation of the rules, perhaps sometimes insensitively, by the officials whom the students encounter?

**Professor Mick Fuller:** Again, I am quite happy to start. I think that the rules, and the changes that we all know about over the past three or four years, have had quite a big effect on the market in terms of how they look at us, but in response to that the universities themselves have invested hugely in protecting or encouraging those students more than they ever did before. I tried to do a back-of-the-envelope calculation, and I think that the universities are investing between £5 million and £10 million a year just to be compliant with the new regulations. They have upped their game in terms of their advice to international applicants, and to the students once they get here about the renewal of visas. It is now an accepted part of the universities' profile and strategy to be able to do that. However, it is very clear that you need to give a lot of advance notice to students so that they have plenty of time to put the applications together for the ATAS and then the CAS, and then get their visas. Of course, the biggest problem is that if you have a taught course, whether it is undergraduate or postgraduate, it has a set start date. Trying to hit that start date at the right time is incredibly difficult for some students. Postgraduate research has more flexible entry dates: at our university, we have three entry dates, so they just roll forward to the next entry date if they do not get their visa in time. This is part of learning what the regulations are and becoming compliant. The universities need to be applauded for the way in which they have tackled this issue. However, there is a perception out there that it is much more difficult, and there is no doubt about that. Particularly in India, there was a contagion effect: the notion that the UK was closing its borders and becoming much more difficult about entry went around India like wildfire, and it led to the big decline that we have seen. In other areas, I do not think that it is quite such an issue; it is just a matter of starting earlier and

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making sure that your timeline on application is pump-primed, and that requires a lot of work from us.

**Professor Anthony Finkelstein:** I do not know whether it is possible to unwind those different effects. Then you have the second-order effects—the possibility of their changing the regulations, the perception of the regulations and the way in which they are transmitted to students. Basically, the whole thing binds together. For certain, an improved mechanism for delivery and method of presentation would make a substantial difference. I also think that the ways in which errors are handled, and the anecdotal evidence that I have received from people suggests that they are not infrequent, could be substantially improved. You have to make only a small number of mistakes for these things to have large-ripple consequences for the reputation of the UK and for the psyche of the applicants.

**Professor Scott MacGregor:** I agree that the change in rules is making it administratively challenging for institutions to stay up to date, particularly when the rules can change three or four times a year with immediate effect. This also has an impact on the time that it takes to process an application through an agent system. In quite a lot of the competition that is coming in now, we have agents that are working with the UK but also working with Canada and Australia, and if it is easier to put students through those routes we can suffer as a consequence. Over the past few years, the number of overseas students has increased considerably. The difficulty that we have just now is being able to detract the impact of the change in regulations from what was an increasing number of students. It might be that, had we not changed the regulations in the way that we did, the increases could have been even greater, but that is very difficult to discern from the data. One aspect of this is that, from the students' perspective, if the students are not overly enjoying the application process they share that experience with other students. That has a negative impact. Anything that we can do to streamline the process as much as possible will be beneficial.

**Lord Rees of Ludlow:** I think that is very important, but another issue is that students have to report to the police when they are here. In its evidence, the National Union of Students said that this caused quite a bit of aggro in some cases. Do you have any comments on that?

**Professor Scott MacGregor:** I do not get the feeling that this is causing a problem, provided that the induction for the new students is done properly, and quite often the institutions organise that. I know that when I go overseas I have to report and hand in my passport, and that even if I do not hand my passport in and want to stay locally I still have to report to the police station. There is a balance to some of these things, and if they are handled correctly, students will not feel as if they are being persecuted.

**Professor Anthony Finkelstein:** I understand that perhaps this year and last year the situation with police registration was changed. After the situation where there were appalling and chaotic scenes outside registration places in London, it has now been changed so that institutions handle the largest part of that responsibility. I am told that those problems are no longer as serious as they were.

**Professor Mick Fuller:** I will follow-up very quickly on that. Again, this is about communication, the induction of students and how you handle them. If you pick them up from the airport and bring them in, you can put them through the process. We have had incidences where the police have taken their passports away for processing but have not given them back for seven days, and of course students cannot open a bank account unless

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they have their passport so they then cannot draw down their money, so then we have to lend them money for the first week for them to live off. That is just a matter of putting the process right, and that is part, as I have said, of our enhanced handling of international students through the processing system.

**Q76 Baroness Sharp of Guildford:** I wanted to ask about the Academic Technology Approval Scheme. I gather that in 2010 that took 10 weeks to process and now it takes something like nine months, and this has hit some graduate students. I wonder if you have any comment on this.

**Professor Scott MacGregor:** I do not think that this is overly problematic. I think there will be one or two instances where there has been an issue, but by and large this is part of the process. That may also be due to the fact that at Strathclyde University we take in PGR students all year, so there is not the same timing restriction. There might be an indication with other institutions if they take in students only for a finite time. By and large, I do not think this is overly problematic, although the quicker that we make the process, the better the experience of the students.

**Baroness Sharp of Guildford:** That affects only students from particular countries, does it not?

**Professor Anthony Finkelstein:** And particular subject areas. Our experience has been that the system basically tends to break over the summer. I am told that nominally there is a service standard of four weeks, but over the critical period of the summer it can stretch out to as long as months—three months was the number I was given by the people in our team responsible for this. That is just long enough to cause knock-on consequences with the visa scheme, all for a relatively small number of rejections. I do not think it is beyond the wit of man to devise a better scheme to handle this.

**Baroness Sharp of Guildford:** Can they appeal against rejection?

**Professor Anthony Finkelstein:** Not to the best of my knowledge.

**Professor Mick Fuller:** I echo the same things. At the very beginning, it was because this area was handled in a different office and they had an impenetrable firewall around it; you could not penetrate it to get inquiries through. The process is not terribly onerous, though; we just have to start it a lot earlier in the application cycle. So long as we in the universities are alerted to it, it is only a matter of a few sentences to get that clearance through in most cases. I think that we have had only one rejection.

**Baroness Sharp of Guildford:** What is your view of indications that delays have increased over the course of the past few years, rather than the other way around?

**Professor Mick Fuller:** I interpreted that as applying to the post-study group, where you might have to get ATAS clearance for your post-study work—you might have only a couple of months to clear that and it might take nine months. For a PhD student, though, who might be a year or two years in getting their application before admission, it is not such a problem.

**Q77 Earl of Selborne:** My question is to Professor Finkelstein. Earlier you said that the first issues arise when a potential student googles “UK visa”. That suggests that the first impressions are unfavourable. What would be feasible to change these first impressions?

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**Professor Anthony Finkelstein:** My sense is that we need an overall change almost in mindset, and that needs to be reflected in the materials, in the way in which processing is handled and in the way in which inquiries are dealt with—an approach that foregrounds the fact that the UK is in the business of providing education and aspires to be the destination for the world’s best talent. It needs to start with almost that sort of approach throughout the materials, giving people who might potentially want to come to the UK the experience of a place that is welcoming of enterprise and of talent. At the moment I do not think that the way we approach these things, from the framing of the regulations to the publicity around them—

**Earl of Selborne:** This sounds as though it is the responsibility of the Home Office.

**Professor Anthony Finkelstein:** I would not like to comment on that.

**The Chairman:** Oh, go on.

**Professor Anthony Finkelstein:** I think it is the collective responsibility of government, working in partnership with institutions.

**The Chairman:** The Home Office is the lead on this, surely. It sets the regulations. No, I am going to leave that because I will get told off by the clerk.

**Q78 Lord Patel:** My question is about the visas related to post-study work. Arrangements for post-study work are going to change from the current route to the new tier 2 visas. Can you tell us briefly what effect this is likely to have on students, employers and, for that matter, universities?

**Professor Mick Fuller:** There is no doubt that the change in the regulations regarding the allowance for post-study work affected certain subjects particularly. That has been one of the causative factors in the decline in Indian subcontinent applications and people studying here. For PhDs it is less of an issue, and the fact that it has just changed and is now rolling out is indicative of a lot of incremental changes that it takes institutions and individuals who are thinking about things a long time to understand and implement. From a particularly hard line that was drawn at the beginning to more of a softening and another opportunity, it takes a long time to roll out in the consciousness of both people who are here and people who are in their home countries before they come. It is not an instant fix to say, “We’ve changed it all a bit and now it’s actually a better opportunity”. It will take quite a few years to unravel to a point where we can implement it. It is early days.

**Lord Patel:** In the meantime, what will be the effect?

**Professor Mick Fuller:** The effect is that there is now a better opportunity for researchers who are supervising international students actually to begin to plan. However, I think that they are still in the mindset that it does not exist any more. Institutions graduate schools have to promulgate those opportunities back to their supervisors so that they can begin to take advantage of them. The limitations on what they have to earn before they can get a tier 2 visa are also a bit daunting, and the amount of time that they have to think about it, particularly if they are on a master’s course, means that they do not have much time at the end of that course to get a tier 2 visa sorted out and find the kind of finances necessary for a post-study job.

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**Professor Scott MacGregor:** To add to what has been said, students are very discerning when they are going overseas. They can look at the tier 2 situation in the UK and they can look at what is happening in Australia, Canada and even in Ireland. All those systems are much more supportive in providing post-study work opportunities for students coming to the UK. With the tier 2 system, there is no evidence just now to suggest that it is adversely impacting, but nor is there any evidence to suggest that it is positively impacting. You would like to think that the potential advantage of having that approach would be that in key areas where there are skills shortages, high-quality overseas students could fill those gaps for the UK economy. I do not see the current system necessarily facilitating that.

**Professor Anthony Finkelstein:** I think that is borne out by the evidence that you have heard from employers, which suggests that the current situation is extremely difficult for them. The knock-on consequences are probably pretty self-evident.

**Q79 Baroness Manningham-Buller:** You mentioned the different lengths of time in other countries—Australia and so on. If we were to get the message across that Professor Finkelstein has articulated for us about attracting international students to this country, what length of time to post-graduation or post-end-of-study do you think would be the optimum one to recommend?

**Professor Scott MacGregor:** The other markets are all looking at one, two or three years, depending on the level at which people are graduating. Just now we have a four-month window, which is far too short. It is difficult to say what the optimum time is because you would want to determine what the impact was on the take-up by employers and what the benefits were, but it is clear just now that four months is far too short. My own preference would be to move that to at least a year, if not longer.

**Baroness Manningham-Buller:** Any advances on a year?

**Professor Mick Fuller:** Personally I think that the two-year rule was actually very useful, and to go back to that would be hugely healing in this area.

**Professor Anthony Finkelstein:** My gut feeling is that two years is a reasonable period for professional formation, so I would rather be driven by that impetus. In other words, two years is the right period for someone in an entry-level job to acquire the matching professional skills to link with their education, so I think that that would be the right driver. This might also be something where some market research could give some answers.

**Q80 Lord Wade of Chorlton:** This is more of a comment than a question, but I am interested in how you will react to it. Having listened to all your comments today and those that we have heard before. I am left with an impression that you are part of an international, changing industry—many of which I have associated with in my lifetime, from the food industry to the engineering industry and the clothing industry—that is suddenly facing a changing world, where attitudes are changing among customers, in the Government and even in the regulations. All these other industries are continually adapting. From a university point of view, you have to decide how you want to adapt. Either you see yourselves as separate businesses, each one within the major field of education, and you want to attract new customers and ensure that you are still making money, and the Government are a part of that, so you decide whether you can do it as a business, and I would have thought that in many instances maybe you could do it as an individual business—“I am going to adjust the



Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)

way that I do business to fit in with this changing world”—or you have to work with others to make it happen because you cannot do it on your own. How do you react to those comments? Do you see the situation in that light, or do you see education as something entirely different from other industries—which, frankly, I do not?

**Professor Mick Fuller:** As I pointed out earlier, I think we have adapted. We have developed this as a business and, actually, with true business acumen. The effort that we are prepared to put in, and the partnerships that we are prepared to build, have shown just how adaptive we are. A British university not dealing with international students would be a very sad institution. Everyone is investing a huge amount of money and time in doing exactly what you are suggesting.

**Lord Wade of Chorlton:** So you are agreeing with me?

**Professor Mick Fuller:** I am, yes.

**Lord Wade of Chorlton:** Individuals can adapt to a changing world, and it is less a Government’s responsibility to adapt to it than it is individual businesses’.

**Professor Anthony Finkelstein:** Forgive me, I disagree. Yes, there is a component of what universities are that is about our standing as a business—that is not all of what we are because we have a driving social and intellectual mission as well, but it is an important part of what we are—but we are bound in by the regulatory and government framework that can either enable our global success or inhibit it. If we want the UK education business to be a truly world-winning business—in other words, if we do not want it to look like the UK engineering business or the UK clothing business—we need to make quite sure that we provide the services from government that are necessary for us to achieve that.

**Lord Wade of Chorlton:** And what are you doing to get that?

**Professor Anthony Finkelstein:** I thought that was what I was doing now.

**Lord Wade of Chorlton:** So you want us to do it for you? Are you doing anything other than what we are doing?

**Professor Scott MacGregor:** From the universities’ perspective, Universities UK has pulled the sector together and clearly identified what needs to change in order to support universities moving into the 21st century. Elements of what you say are quite right, but universities are not working in isolation trying to get their own individual needs met. A lot of the requirements that we need to develop are common across the whole sector, and collectively these have been captured by Universities UK. All the universities are supporting what Universities UK is trying to do, and everything that we are saying here as individual representatives is fully aligned with that.

**Professor Anthony Finkelstein:** Forgive me if I make a short analogy. I am sure that plenty of people around the table here have had the experience of standing in a long line at American customs and immigration. I have to tell you that standing at the back of that line, my thoughts are never, “This is a country that’s really open for business. This is a country that cares about and wants to facilitate what I’m here to do”. My feelings are certainly nothing like that, and that is the same experience that our students have when they stare at the thicket of regulation that surrounds visas and immigration in the UK.

**Lord Wade of Chorlton:** That is a personal viewpoint.

Professor Scott MacGregor, University of Strathclyde, Professor Anthony Finkelstein, University College London, and Professor Mick Fuller, Plymouth University – Oral evidence (QQ 64-81)

**Q81 Lord Peston:** I agree that I am biased but, viewing this from a national standpoint and asking the question, “What sorts of businesses ought our country to be in?”, something that leaps out is that one thing we are very good at is higher education, including research. That is one of the things that we are exceptionally good at. We are probably better still at retailing, which is our great strength, but you cannot export retailing in the ordinary way. However, what puzzles me is that the evidence we have had has been that broadly the Government have not been helpful in promoting a sector of the economy—I know you do not want to say this; I am saying it instead—that brings us enormous prestige and quite a lot of money. Would I be wrong in saying that the Government really ought to refocus themselves in terms of what they are pushing, instead of irritating everyone with complicated systems? Wearing my economics hat, the important thing for the Government to do is to let you get on as well as you possibly can with the things that you can do. Would that be a fair remark?

**The Chairman:** Does anyone wish to comment?

**Professor Mick Fuller:** I would say one thing. This is about the business imperative over the security imperative, and I think that the security imperative is winning out in the Government’s mind because there is a huge amount of worry and you can never quite understand the security issues. This seems to have been a fairly draconian attempt to control the security of our borders and, because international students were a big flow across those international borders, an element of suspicion was thrown across them that had to be checked. The consequence is that the business to UK universities has been dented particularly hard in the first year, and we have had to work hard to recover the position, which I think we have, in responding to that situation. There is a time for mature reflection after you have put in a draconian set of regulations, in order to think again, relax and bring the business imperative in balance with the security imperative, and I think that that time is approaching.

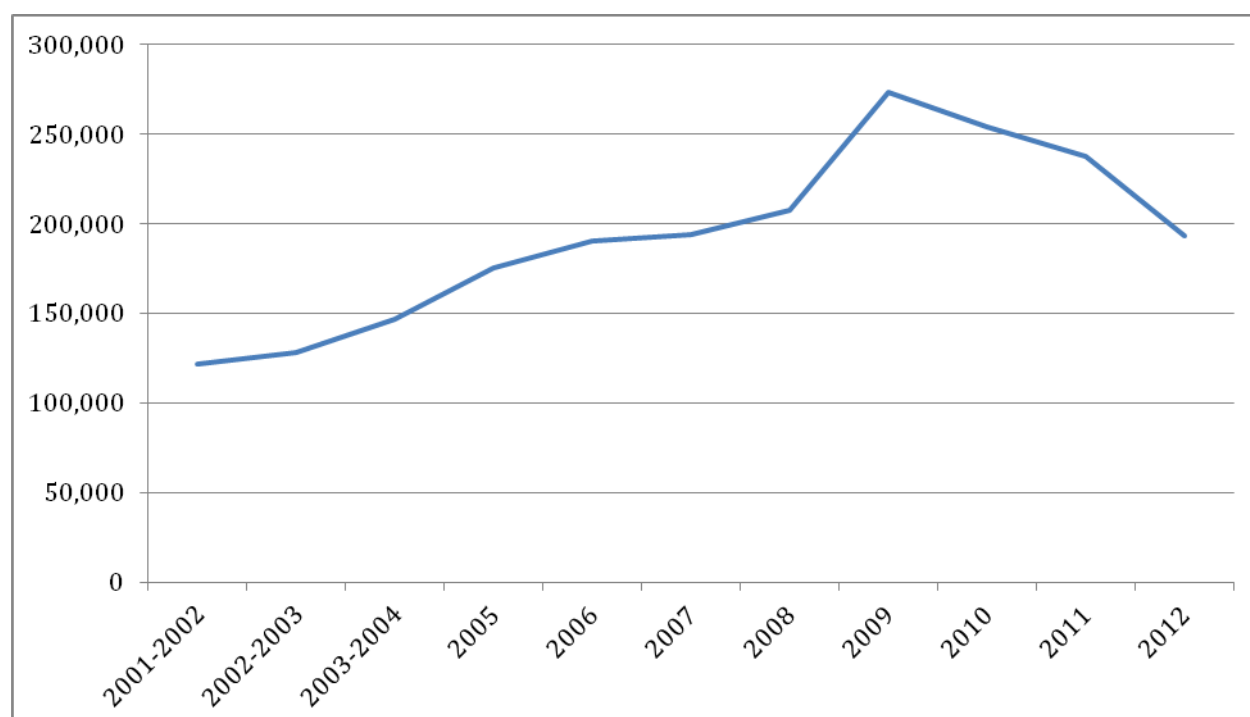
**The Chairman:** Professor Fuller, reflect maturely is exactly what we will do. Thank you very much. I am sorry that we have run two minutes over. I thank Professor MacGregor, Professor Finkelstein and Professor Fuller for a really interesting session. Thank you for your time.

## Migration Watch UK – Written evidence

### A History of Student Numbers

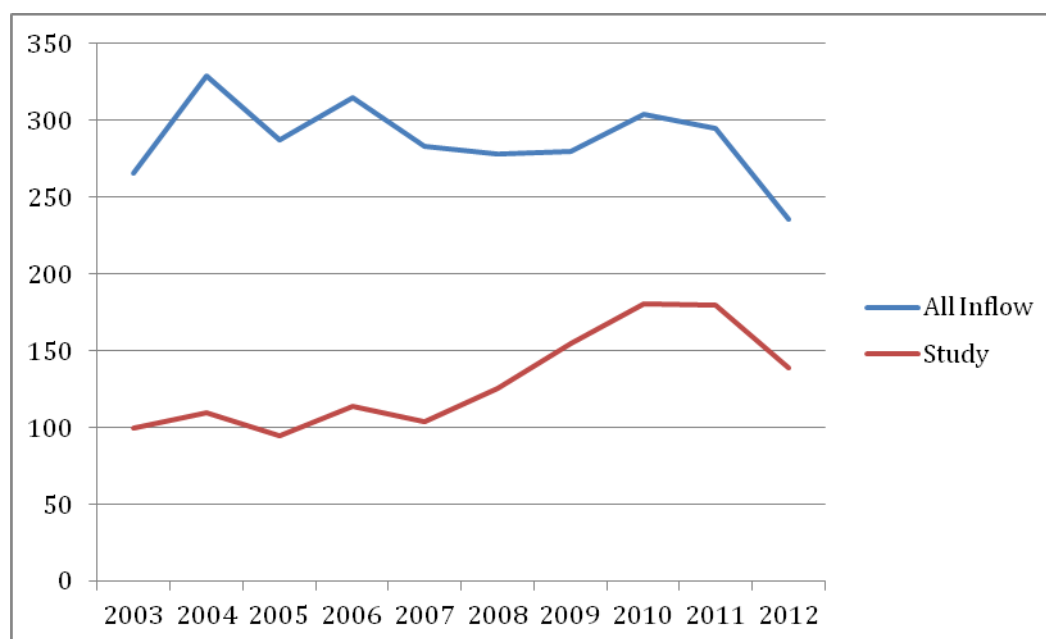
1. The number of visas granted to non-EU students has increased significantly over the years. In 2001 over 122,000 visas were granted. This figure increased gradually as Universities sought to increase the numbers of high value overseas students that studied at their institutions. By 2008 that number had increased to almost 208,000. In 2009 however that number jumped by 32% in one year to over 273,000. That number has since fallen and in 2012 193,000 student visas were granted.

Figure 1. Grants of PBS Tier 4 and Pre-PBS Equivalents, 2001-2012



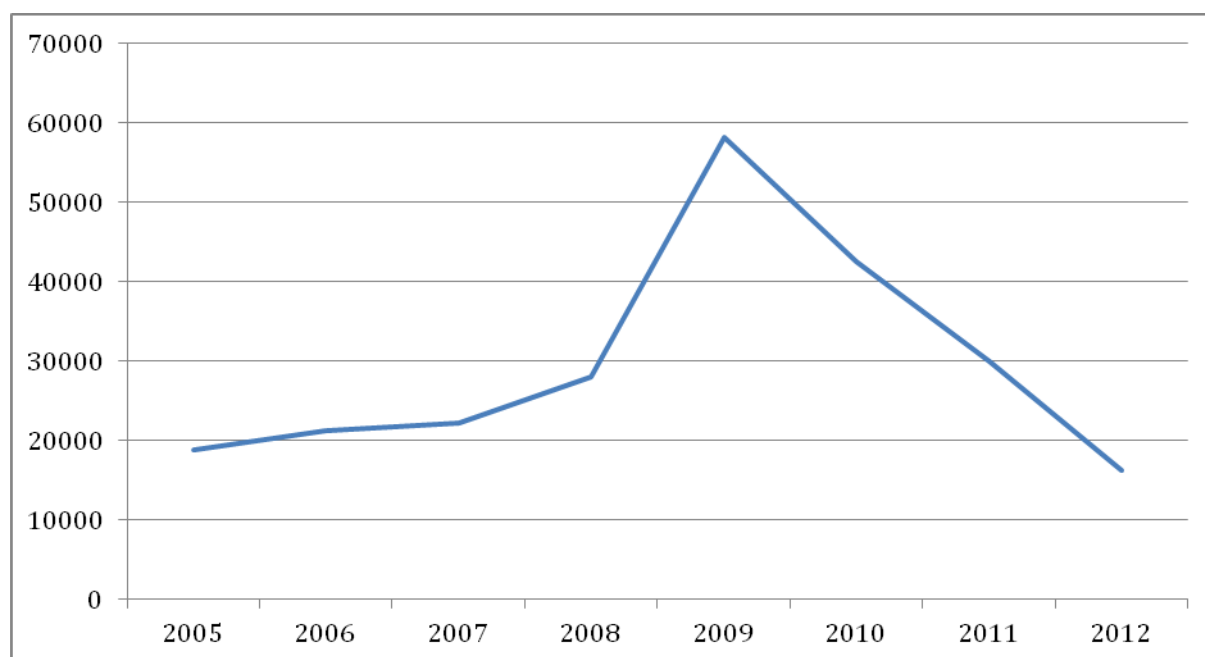
2. Visa data is only half of the story. Migration to and from the UK is measured by the International Passenger Survey. Student inflows are lower than visa numbers since not all students will eventually arrive and they do not always arrive in the year that their visa was granted. Nor will the survey, based on voluntary interviews, pick up all those concerned. In the year ending June 2013 216,000 non-EU migrants entered the country, 133,000 of whom came for study. Students therefore comprise 62% of total non-EU inflow to the UK.

Figure 2. IPS Inflow by Reason for Migration, Total Inflow and Student Inflow



3. Until recently there has been no reliable information on the number of students that have left the country following their studies. This is because the IPS was unable to distinguish departing workers from those who had arrived as students but were departing to seek work. A 2009 Home Office report 'The Migrant Journey' suggested that after five years only 20% of students had valid leave to remain, the remaining 80% had no leave to remain in the country and should have therefore returned home but there was no way of knowing whether or not those students had indeed gone home. The IPS has since been revised (as suggested by Migration Watch) and, from 2012, is able to capture departing students. This data suggests that students are not going home at the rate that the Home Office report implied that they were. Rather, according to the IPS, **students seem to be departing the UK at a third of the rate that they arrive (taking the average of the previous five years of arrivals)**. It is clear therefore that students are contributing to net migration on a very significant scale. It would clearly be useful if the government were to focus on gaining a greater understanding of student movements.

Figure 3. Student Inflow and Outflow - Assumed and Actual 2003-2012



### Government Policy

4. The government has pledged to reduce net migration from the hundreds of thousands to the tens of thousands by the end of this Parliament. Net migration currently stands at 182,000, down from its peak of 260,000 in the year ending June 2005.

5. However, government policy is not to reduce the number of genuine students for the sake of reaching this target. Genuine students who wish to come to the UK for study and then return are welcome and **there is no cap on their number**. Students who come to study and then return home do not over time contribute to net migration as departures cancel out arrivals. Those that stay legally to marry or work do contribute to net migration as do those that stay on illegally. Given the new evidence about departures, the main issue is therefore bogus students who enter the UK with no intention to study and those that enter and study but then remain in the UK illegally.

6. Government reforms have therefore targeted abuse of the system, which the evidence suggests has been significant. Over 700 bogus colleges have been closed by the Home Office since 2010 (Reference). Education institutions wishing to sponsor students must now be accredited by a recognised body and must have a record of immigration compliance. Students now have to satisfy minimum language requirements commensurate with being able to complete a course in English, although University applicants are exempt. Only those studying at post graduate level for more than a year can sponsor dependants to join them in the UK during their studies. Students can no longer remain for two years to work in low-skilled and low-paid employment but rather must find graduate level work paying £20,000 if they wish to remain for work.

7. Genuine students wishing to study at UK universities will find that the UK offers almost exactly the same 'package' as previously:

- Genuine students can work for up to 20 hours per week during term time and full time during holidays
- Students can study for up to five years, or longer if the course is Medicine, Dentistry, Law, Veterinary Medicine etc.
- Students can stay on for four months after the end of the course in which to look for work
- Students can switch into Tier 2 General if they can find a graduate level job earning £20,000. Such students are not subject to a resident labour market test and they are not included in the overall cap, meaning that there is no limit to their number.
- Students studying at undergraduate level are no longer allowed to bring their dependants. Students studying at postgraduate level for a minimum of 12 months can do so.

8. For universities, therefore, very little has changed beyond changes to the reporting requirements.

- Universities can recruit as many genuine overseas students as they wish.
- Universities are granted the discretion to judge the English language competence of graduates ensuring that the best students who may not necessarily speak fluent English can continue to study in the UK.

9. The government has closed down the Tier 1 Post Study Work route. The post study work scheme was originally introduced to allow the brightest and best students of STEM subjects the right to stay on and work for one year. However, the previous government expanded the scheme three times in as many years until, when it was closed, it allowed all graduates of any subject and at any grade the right to stay on and work or search for work. The scheme was described by the independent Migration Advisory Committee as ‘probably one of the most generous schemes of its type in the world’.<sup>74</sup> As noted in paragraph 7 above, students can still remain for work if they find a graduate level job. There would be no significant immigration risk in reinstating the original post study work conditions provided that it was confined to students of STEM subjects and to employment related to their studies.

10. It remains government policy to include students in both the net migration statistics and the net migration target. The UK’s main competitor countries, Australia and the United States, both include students in their net migration statistics as well as in separate administrative visa statistics as we do.<sup>75</sup> The chairmen of several Parliamentary select committees were factually incorrect to suggest otherwise.<sup>76</sup>

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<sup>74</sup> Migration Advisory Committee, Analysis of the Points Based System: Tier 1, December 2009, p. 8, URL: <http://webarchive.nationalarchives.gov.uk/20100422120657/http://www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/pbsanalysis-09/041209/mac-december-09?view=Binary>

<sup>75</sup> DIAC, URL: <http://www.immi.gov.au/media/publications/statistics/immigration-update/nom-mar12.pdf>, US Census, URL: <http://www.census.gov/population/www/documentation/twps0051/twps0051.html#nettemp> See also the Prime Minister’s response to joint letter on Overseas Students and Net Migration, March 2013, URL: <http://www.parliament.uk/documents/commons-committees/business-innovation-and-skills/Reply%20from%20the%20PM%2020130308.pdf>

<sup>76</sup> Government Response to Fourth Report from the BIS Committee Session 2012/13 HC 425, Overseas Students and Net Migration, February 2013, URL: <http://www.official-documents.gov.uk/document/cm85/8557/8557.pdf>

## Abuse of the System

11. In 2009 the Points Based System (PBS) was introduced and was billed as a tough new approach to immigration. The system introduced “objective” criteria against which applicants would be judged. In reality however the introduction of the PBS and with it the abolition of the immigration interview brought chaos to the system. A paper based system was incapable of detecting bogus students and numbers soared.

12. Towards the end of 2009 the government was forced to suspend student visa applications in China, North India, Bangladesh and Nepal due to concerns that the significant rise in applications was fuelled by bogus students and organised scams.<sup>77</sup> These suspensions were not fully lifted until August 2010.<sup>78</sup> A Parliamentary question shows that in the third quarter of 2008 there were 22,944 Tier 4 Student applications in India. In the third quarter of 2009 this number had risen to 54,749.<sup>79</sup> A similar pattern appeared in other countries where Tier 4 activity was suspended.

13. In March 2012 the National Audit Office concluded that in the first year of the PBS alone between 40,000 and 50,000 students may have entered the country to work rather than study. Referring to the now defunct UK Border Agency the NAO found that ‘the agency granted one-third more student visas in the first year of Tier 4, an increase not explained fully by external economic changes, such as increased prosperity in some countries and movements in exchange rates’.<sup>80</sup> Specifically the NAO found surges in applications in the English Language sector and the private college sector.<sup>81</sup>

14. In 2012 the Home Office published the results of a three month student interview pilot scheme to assess the usefulness of interviews with a view to reintroducing them. The scheme piloted a credibility assessment made up of four elements: a students’ intention to study the proposed course, their ability to study the course, their ability to support themselves and any dependants for the duration of the course, and finally their intention to leave the UK at the end of their course. The pilot scheme found that in India, Nigeria, Bangladesh and Burma around 60% of those interviewed could potentially have been refused a visa on credibility grounds. In the Philippines this number was 53%, in Pakistan 48% and in Sri Lanka this number was 41%.<sup>82</sup> The Home Office announced that from April 2013 around 100,000 student applicants would face interviews in order to further strengthen the system that had proved incapable of rooting out abuse.<sup>83</sup>

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<sup>77</sup> House of Commons Standard Note, Immigration: International Students and Tier 4 of the Points Based System, SN/HA/05349, 23 July 2010, URL: <http://www.parliament.uk/briefing-papers/SN05349.pdf>

<sup>78</sup> National Audit Office, Immigration: The Points Based System – Student Route, March 2012, URL: <http://www.nao.org.uk/wp-content/uploads/2012/03/10121827.pdf> p. 14.

<sup>79</sup> Parliamentary Question from Mr Frank Field, Hansard Reference 1264W, 6<sup>th</sup> April 2010, URL: <http://www.publications.parliament.uk/pa/cm200910/cmhansrd/cm100406/text/100406w0028.htm#10040638002742>

<sup>80</sup> National Audit Office, p. 15.

<sup>81</sup> National Audit Office, p. 14.

<sup>82</sup> Home Office, Tier 4 student credibility pilot analysis of quantitative and qualitative data, July 2012, URL: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/115920/occ104.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115920/occ104.pdf)

<sup>83</sup> Theresa May, Speech to Policy Exchange, 12<sup>th</sup> December 2012, URL: <https://www.gov.uk/government/speeches/home-secretary-speech-on-an-immigration-system-that-works-in-the-national-interest>

## Reductions in Student Numbers

15. It is therefore in this context that the recent fall in student numbers, as measured by both the visa data and the IPS, is to be understood. Given that abuse took place on a significant scale and that the government took action to tackle abuse it is no surprise and is indeed positive, that numbers have fallen since this suggests that government measures to tackle abuse, and thus protect the wider education sector have been successful.

16. The reduction in student numbers has not affected Universities. Applications for University have risen each year since this government came to power and are now almost 10% higher than they were in 2010. The data for 2013 will become available when the government release the next batch of visa statistics this month.

Table 1. Applicants for visas for study using sponsor acceptances, by education sector

Education provider	2010	2011	2012
UK-based Higher Education Institutions	143,177	152,536	156,535
Tertiary, Further education or other colleges	65,392	83,993	32,500
English language school	19,253	11,476	3,589
Independent school	14,478	16,168	13,937
Other	6,867	6,511	3,548
*Total	249,167	270,684	210,109

17. There has been a reduction in the number of applicants for further education, i.e. public and private colleges. Numbers have fallen from 84,000 in 2011 to 32,500 in 2012. However it is here where most of the abuse took place. For example 78% of students who were identified by the Home Office Pilot Scheme as potential refusals on credibility grounds at interview were applying for a privately or publicly funded college<sup>84</sup> and the data shows that of those interviewed as many as 58% of private college applicants and 51% of public college applicants may have been refused a visa on credibility grounds. It is likely that the 100,000 student interviews conducted by the Home Office have resulted in bogus applications being withdrawn or applicants failing the interview.

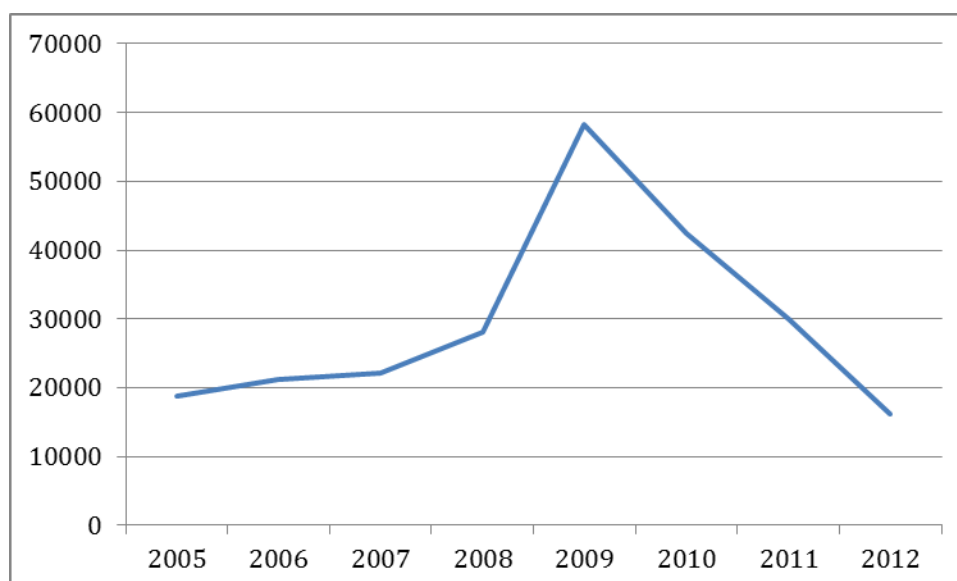
18. The sharp reduction in English language applicants is due to the student visitor visa being extended to 11 months from 6 months meaning that now only a small number require a Tier 4 visa to study language.

19. Much has been made of the fall in Indian students to the UK. However it was in India where one of the largest increases in student visa grants took place when the PBS was introduced, increasing by 108% between 2008 and 2009.

Figure 4. PBS Tier 4 and Pre-PBS Student Visa Grants to Indian Nationals

<sup>84</sup> See Table 11 of Data Tables – Tier 4 student credibility pilot analysis of quantitative and qualitative data, July 2012, URL: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/115921/occ104-tabs.xls](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115921/occ104-tabs.xls)





### International Comparisons

20. By way of comparison it can be helpful to look at our competitors to judge the competitiveness of the UK's offer to students.<sup>85</sup>

- Both the UK and Australia require that students meet minimum language standards, the UK requires level 5.5 on the IELTS scale, Australia requires a slightly higher score of 6.0. In the USA there is no visa requirement to demonstrate English language competence however students must demonstrate to their sponsoring institution their language competence. There are no language requirements in Canada and New Zealand.
- The UK, Australia and Canada may require students to attend an interview where necessary. Students wishing to study in the USA are interviewed in their home country as standard. There are no interviews for students wishing to study in New Zealand.
- The UK, Australia, Canada, New Zealand and the USA all require that students be assessed for their 'genuine intent' and assessed for whether they intend to depart the country following their studies.
- Students must demonstrate minimum maintenance requirements in the UK as well as in Australia, Canada, New Zealand and the USA. Students must demonstrate maintenance requirements for the full duration of their stay in Australia and the USA compared to just the first year in the UK.
- Not all of the UK's competitor countries allow students to bring dependants. Australia allows students who are deemed 'low risk' to bring dependants. The USA allows undergraduates and postgraduates studying for a minimum of 12 months to bring dependants. In Canada and New Zealand students can be accompanied by their

<sup>85</sup> Information taken from Supplementary Written Evidence submitted by Universities UK to the Business Innovation and Skills Committee Enquiry into Overseas Students and Net Migration, September 21012, URL: <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmbis/425/425we04.htm>

dependants. The UK allows postgraduate students studying for a minimum of 12 months to be accompanied by their dependants.

- In the UK students can work for 20 hours during term time in any job and full time during holidays. In Australia students can work 40 hours in any fortnight. In Canada students must apply for a permit to work off-campus and are restricted to 20 hours during term time and full time during holidays. In New Zealand students in 'tertiary education' can work up to 20 hours per week. In the USA students are restricted to on-campus employment.
- Students wishing to study in Australia, New Zealand and the USA must have health insurance. Applicants to Canada must be in good health and be willing to complete a medical examination. Students in the UK may be screened for TB however are not required to complete a medical examination or have health insurance.
- The UK limits the period of study in the UK to five years, except where the student is studying a longer course such as Medicine. In the UK's competitor countries there is no maximum length of study.
- Students in the UK can switch into Tier 2 so long as they find any graduate job earning a minimum of £20,000 and can work for five years. There are no further restrictions and no limit on numbers. Students in Australia can apply for a two year post study work visa with no restrictions on their employment. Students in Canada can apply for a post study work permit of up to 3 years. In New Zealand students that find work relevant to their studies and qualification can obtain a 2 year work experience visa but an Immigration Official must be satisfied that their studies/qualification was a key reason for being offered the job. In the USA University students can obtain an Optional Practical Training extension if they find work in a field related to their studies. The maximum length is 29 months.

### **Short answers to some specific questions posed by the Committee**

*a) Are changes to immigration rules having an adverse effect on prospective international STEM students choosing to study in the UK?*

The changes to the student immigration system have affected bogus students and bogus colleges but not universities and genuine students. There is no impediment to genuine students studying at UK institutions and no limitation on their numbers.

*b) Is there a perception that these new policies could be sending out unwelcoming messages abroad?*

Any unwelcoming messages that are being received abroad are not coming from the government which has continuously stressed that the UK is wide open to the world's brightest and best students. The education sector is largely responsible for the bad press abroad. It is to be hoped that this will dissipate as the system (and the sector) settle down.

*c) Are prospective international students fully aware of immigration policy and do universities and the Government need to improve how they communicate immigration rules?*

The government has tried to communicate that the UK is open to students, however it may be that there is a role for the British Council to be more positive in terms of its communications to prospective students. Immigration policy as it relates to prospective students is, in fact, quite simple and is readily available online.

*d) As a result of immigration policy, are UK universities now losing out internationally?*

No. Immigration policy has not undergone much change, as it relates to universities. Genuine students can study with no cap on their numbers and can stay on to work so long as the job is a graduate one paying a minimum of £20,000. University applicants to the UK have increased by 10% between 2010 and 2012. This is similar to the growth in University visas experienced in Australia where numbers have increased by 13% during the same period.<sup>86</sup> In Canada the total number of foreign students entering the country (a slightly different measure) increased by 10% between 2010 and 2012.<sup>87</sup> The United States has recently relaxed its rules slightly after tightening the rules following 9/11. It has therefore seen total student growth of 25% between 2010 and 2012. It is worth noting, however, that the US issued 515,000 student visas in 2012 and is a country with a population of 310 million. The UK issued 200,000 or 39% of the number issued by the USA despite having a population that is just 20% of the size.<sup>88</sup>

14 February 2014

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<sup>86</sup> Australian Government, Student visa program trends 2006-07 – 2012-13, URL:

<http://www.immi.gov.au/media/statistics/study/pdf/student-visa-program-trends-2012-13.pdf> Table 2.01

<sup>87</sup> Government of Canada, Facts and Figures 2012, Temporary Residents – Total Entries of foreign students by source country, URL: <http://www.cic.gc.ca/english/resources/statistics/facts2012/temporary/13.asp>

<sup>88</sup> US State Department, Table XVI(A) Classes of Non-Immigrants Issued Visas, URL:

<http://travel.state.gov/content/dam/visas/Statistics/AnnualReports/FY2012AnnualReport/FY12AnnualReport-TableXVIA.pdf>

## Million+ – Written evidence

### Introduction

1. million+ is a university think-tank which provides evidence and analysis on policy and funding regimes that impact on universities, students and the services that universities provide for business, the NHS, education and the not-for-profit sectors.
2. In 2011 million+ published *International Higher Education: missing an opportunity?*<sup>89</sup>. We welcome the opportunity provided by the Committee's Inquiry to examine the Government's approach to international STEM students, bearing in mind the apparent reluctance of Ministers to take account of the views of five Select Committees that international student numbers should be removed from the migration numbers.

### International students and STEM disciplines

3. Both HMT and BIS have emphasised the importance of STEM disciplines to the government's growth agenda and to the role of higher education as a key export industry. However, international demand for non-STEM subjects and professionally focused courses linked with the humanities, social sciences (which include economists who are classified as non-STEM) and the creative industries is increasing. The evidence suggests that the Government's visa policies, amendments to Post Work Study routes and the rapid expansion of out-of-country interviews since 2011 are impacting on students across all disciplines including STEM.

### The numbers

4. The Government asserts and the Committee has heard evidence that there is no cap on student numbers. Ministers have also stated that counting international students in the migration figures complies with UN guidelines<sup>90</sup>.
5. These arguments fail to address the following points:
  - **There has never been a cap on the number of international students who can enter the UK or be accepted by UK universities: neither the fees nor the numbers of these students are regulated.**
  - **Competitor countries regard international HE as part of their exports strategy and adopt visa policies which do not have the effect on constraining or limiting the market.**
  - **In Australia and the US international students are not included in net migration figures.**
  - **Between 2011-12 and 2012-13, international full-time *taught* postgraduate students declined by 5%.**
  - **Overall the UK is now losing market share.**

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<sup>89</sup> million+ [http://www.millionplus.ac.uk/documents/reports/INT\\_REPORT\\_Missing\\_an\\_Opportunity\\_FINAL.pdf](http://www.millionplus.ac.uk/documents/reports/INT_REPORT_Missing_an_Opportunity_FINAL.pdf)

<sup>90</sup> In a written Parliamentary Answer on 20 May 2013 the then Immigration Minister Mark Harper said 'Students will continue to count in the Office for National Statistics (ONS) net migration figures because students who stay for more than 12 months are long-term migrants, according to the UN definition. The ONS has recently changed its methodology so that in future it will be possible to identify students in emigration as well as immigration flows. This will begin to provide a more accurate measure of the contribution of students to overall net migration from August 2013'.

6. The decline in the number of accepted applicants and the number of enrolled students from overseas countries is illustrated in the UCAS table of accepted applicants and the HESA figures for enrolled students between 2008 and 2013 which appears at Annex 1. These confirm a sharp decline in numbers arriving from some key countries over the period.

#### **Impact on the viability of courses**

7. In 2012-13 international students made up
- 10% of full-time first degree students and 9% of all first degree students,
  - 59% of full-time taught postgraduates and 38% of all taught postgraduates,
  - 35% of full-time research degree students and 29% of all research postgraduates.
8. International students help sustain the UK's **research base** especially in science, technology, engineering and mathematics: they account for over 40% of UK postgraduate students and 50% of those doing full-time research degrees. Policies that undermine the vitality of the UK's international higher education market have a direct impact on the viability of courses offered to UK home students.

#### **The value of the UK's international Higher Education market**

9. A research paper from the Department for Business Innovation and Skills [Estimating the value to the UK of Education Exports](#) (June 2011) estimates that in 2008-09 tuition fee income to the UK was worth **over £4 billion** - £2.4 billion for HE, £139 million for FE and £880 million for English language. The same [BIS research paper](#) estimates the total value of UK education and training exports to the UK economy at **£14 billion**, with a projection that this could rise as high as £26 billion by 2025. The policies of the Government and the Home Office are undermining a major UK export success story.
10. The UK also benefits from the **global connections** which international students, including STEM students, generate. Many of the main 'source' countries are also key strategic partners for the UK.
11. Other positive impacts of international students on the UK are well-recorded:
- International **fee income** enables colleges and universities to invest in additional, enhanced or expanded facilities, and to offer specialist courses, including in STEM, which would not be viable based on the UK student market alone.
  - Local economies are net beneficiaries from the presence of international students even taking into account the costs of any services which these students may use.
  - The money that international students spend sustains thousands of **jobs** across the UK economy, both in colleges and universities, and in local economies.
  - Businesses have benefitted directly from the talents and experience of international students and in particular from postgraduates and graduates who engaged in Post Work Study.

#### **Post Study Work (PWS)**

12. The many amendments to the rules and regulations for overseas students introduced since 2010 have created a situation of uncertainty for students and institutions but also

for employers. The closure of the Tier 1 (post-study work) visa - which allowed students to remain and work for two years – has deterred students from some countries and in particular India.

13. The requirement that these PWS graduates earn £20,000 per annum sets a higher earnings threshold than the average £19000 salary which domestic graduates can expect to achieve after they have completed their studies. This average salary is lower in regions outside of London and the South-East, further disadvantaging companies such as Nissan which is based in the North East.
14. Multinational companies were known to use the PWS route to hire international students who had graduated in the UK prior to transferring them to their “home” country after their two years of post-study work. This practice, which was also one of the attractions of study in the UK, has been undermined.
15. In comparison to the UK, both Australia and Canada have improved their Post-Work Study ‘offer’.

**The government should be urged to ease the conditions currently applied to the Post Work Study route to avoid the UK losing further market share, including in relation to STEM.**

#### **Credibility interviews**

16. UKBA conducted pilot interviews between December 2011 and February 2012 prior to the Home Office announcement that a new target of conducting 100,000 out-of-country ‘credibility’ interviews per annum would be introduced. According to the Home Office the pilot found that almost a third of students could be judged as ‘not genuine’, although the proportion was 14 per cent for university applicants. To gauge the potential impact of this first wave of interviews, the UK Council for International Student Affairs (UKCISA) gathered responses from 83 institutions, including 57 in higher education. The findings were published in March 2013 in *Tier 4 Credibility Interviews: UKCISA Survey Report*<sup>91</sup>. This concluded that interviews resulted in “unpredictable and subjective” decisions. Examples reported included the following:
  - One student was allegedly refused a visa because border staff thought that study in the UK was a bad use of her deceased father’s money, although this decision was eventually overturned.
  - One student was rejected because they had not previously travelled outside Pakistan and so could “not demonstrate any previous compliance with the immigration rules of another country”.
  - Officers were “sceptical” about the intentions of any student not going to study at a Russell Group university.
  - Several students were refused visas because they could not give “specific module content” about an undergraduate foundation course.

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<sup>91</sup> [http://www.ukcisa.org.uk/files/pdf/about/material\\_media/credibility-interviews-report.pdf](http://www.ukcisa.org.uk/files/pdf/about/material_media/credibility-interviews-report.pdf)

- Visas to international students were refused on “arbitrary” grounds after the introduction of interviews to test applicants’ English skills and genuineness. (Universities have to demonstrate that students have met comprehensive English tests but UKBA is using short interviews to make its own assessment of candidates’ English).
  - It was unclear what training or qualifications the [officers] had to make them able to decide who was a ‘genuine’ student and who could speak an appropriate level of English.
17. The massive extension of credibility interviews has undermined the points-based system which was introduced to reduce the arbitrary decision-making which had undermined the probity of the student visa applications process previously.
18. Neither universities nor students are afforded any right of appeal against the decisions of Entry Clearance Officers following an out-of-country interview. However, an institution’s Highly Trusted Status can be reviewed if UKBA considers that the number of visa refusals of students issued with a Conditional Acceptance of Study by a university is considered excessive. For their part, universities have little option but to adopt risk adverse behavior and there are examples of universities suspending recruitment from particular regions because of a rising number of visa refusals over which they have no control.

**We invite the Committee to highlight the extent to which out-of-country interviews are being used to undermine the points-based entry system and reduce the number of international students entering the UK to study.**

#### **Perceptions of the UK and the Immigration Bill**

19. While universities acknowledge their responsibilities in relation to monitoring international students there is little doubt that these responsibilities have been extended and that universities are effectively being required to operate as extensions of the Border agencies. A study by the National Union of Students has also found that half of the non-EU students surveyed thought that the UK Government was either ‘not welcoming’ or ‘not at all welcoming’ towards international students.<sup>92</sup>
20. It is difficult to see how these perceptions will be improved by the passage of the Immigration Bill which extends the obligations of landlords. The latter will be required to monitor the immigration status of tenants with potential prosecution in the event that tenants’ visas are found to have expired or been withdrawn for other reasons. It would be surprising if some elements of the rental sector did not move towards a more risk adverse position in respect of renting to international students (along with other ‘foreigners’). This has the potential to further undermine the UK’s reputation and the international student experience.
21. Similar issues arise in respect of the inclusion of provisions in the Immigration Bill which enable the Home Secretary to introduce charges for international students to access NHS services. Notwithstanding the principle, it remains unclear whether the Home Secretary

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<sup>92</sup> NUS <http://www.nus.org.uk/Global/NUS%20-%20Immigration%20Bill%20briefing%20-%20Survey%20Report.pdf>

intends to levy a charge as part of the visa application process or when a visa has been issued; nor is it clear whether students would be charged every time they apply for a visa to be renewed or to be extended.

22. These charges are being introduced in spite of the fact that there is no evidence that international students abuse or are excessive users of the NHS, and with no account taken of the net benefits in both monetary and non-monetary terms of their study in the UK.

### **Conclusions**

23. The Home Office has targeted a number of groups to achieve a fall in migration numbers between now and the end of the Parliament. These are dependants and family reunion, skilled workers and international students
24. Families outside of the EU constitute only 20% of the migration figures and out-of-country student interviews are now the primary measure being used to reduce migration with the result that there are real falls in the number of visas being issued to international students.
25. The decline in enrolments and the difficulties in obtaining visas for international students and staff risks undermine the viability of UK courses, collaborations and transnational partnerships and the reputation of the UK in the international higher education market. In contrast countries such as Germany now consider international higher education as a major export market and are investing in international higher education.
26. To arrest the decline and increase the UK's market share in both STEM and non-STEM areas
- i. The Post-Work Study rules should be eased,
  - ii. The impact of the extension of out-of-country interviews on the international student market and enrolments across all subjects should be highlighted,
  - iii. Treasury should provide investment on the lines of the previous government's Prime Ministers' Initiatives and provide a new stream of time-limited funding to promote transnational partnerships,
  - iv. If there is no change to government policy, the merits of including international students in the migration numbers should be subject to an early review following the 2015 general election.

For further information about this briefing or about million+ please visit [www.millionplus.ac.uk](http://www.millionplus.ac.uk).

*24 February 2014*



**Annex 1**

<b>Accepted applicants</b>							
<b>Overseas country</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Change 2010-2013</b>
China	6,120	6,509	8,321	7,568	7,273	7,320	-14%
Hong Kong	2,615	2,575	2,928	3,242	3,916	4,150	29%
France	2,703	3,194	2,696	2,576	2,286	2,270	-19%
Ireland	2,609	2,823	2,992	2,336	2,008	2,120	-41%
Malaysia	2,016	2,390	2,296	2,601	2,556	3,175	28%
Germany	2,276	2,415	2,402	2,330	1,851	1,695	-42%
Cyprus	2,305	2,610	2,554	2,888	2,350	2,465	-4%
India	1,674	1,843	1,802	1,601	1,447	1,595	-13%
Greece	1,652	1,527	1,608	1,818	1,562	1,625	1%
Nigeria	1,681	1,592	1,638	1,473	1,273	1,425	-15%
<b>Total</b>	<b>456,627</b>	<b>481,854</b>	<b>487,329</b>	<b>492,030</b>	<b>464,910</b>	<b>495,595</b>	<b>2%</b>

UCAS data tables for 2013 cycle

**Annex 1 contd**

<b>Enrolments from overseas students</b>						
<b>All UK HEIs</b>	<b>2008/2009</b>	<b>2009/2010</b>	<b>2010/2011</b>	<b>2011/2012</b>	<b>2012/2013</b>	<b>Change 2010/11-2012/13</b>
China	47035	56990	67325	78715	83790	20%
India	34065	38500	39090	29900	22385	-75%
Nigeria	14380	16680	17585	17620	17395	-1%
United States	14345	15060	15555	16335	16235	4%
Malaysia	12695	14060	13900	14545	15015	7%
Hong Kong	9600	9945	10440	11335	13065	20%
Saudi Arabia	5205	8340	10270	9860	9440	-9%
Pakistan	9610	9815	10185	8820	7185	-42%
Canada	5350	5575	5905	6115	6190	5%
Thailand	4675	5505	5945	6235	6180	4%
All other	94355	100290	101915	103205	103100	1%
<b>Total all UK HEIs</b>	<b>251310</b>	<b>280760</b>	<b>298110</b>	<b>302680</b>	<b>299970</b>	<b>1%</b>

HESA SFR 197 (2014) Table 6 - Top ten non-EU countries of domicile in 2012/13 for student enrolments on HIM courses by location of HE institution and country of domicile 2008/09 to 2012/13

## **National Union of Students (NUS) – Written evidence**

### **Background**

1. The National Union of Students (NUS) is a voluntary membership organisation which makes a real difference to the lives of students and its member Students' Unions. We are a confederation of 600 Students' Unions, amounting to more than 95 per cent of all higher and further education unions in the UK.
2. Through our member students' unions, we represent the interests of more than seven million students of which over 500,000 are international students. Our mission is to promote, defend and extend the rights of student and to develop and champion strong students' unions, including those in higher education institutions to ensure learners' interests are represented.

### **Executive summary**

3. NUS has conducted several and some of the only existing surveys of international student opinion on recent immigration policies. Between 2010 and 2014, NUS and NUS Scotland have conducted six surveys which focus on immigration policies and advice. Despite the limited monitoring of the impacts of immigration policies on international students more widely, NUS will provide evidence where possible from these surveys.
4. International student numbers have already fallen significantly. Since 201, the number of Tier 4 visas issued has fallen by over 36%. This year HESA reported the first ever decline of international students studying at UK institutions of 1% following a downward trajectory since 2010. When international students from China and Hong Kong are removed from the latest statistics, the actual fall in international student numbers is closer to 4.5%.
5. Current immigration policy has made the UK appear unwelcoming to international students in comparison to other competitor countries. It has had a negative impact on both the international student experience and international student numbers.
6. The current immigration rules and requirements for sponsor compliance has not only been identified by the NAO and HEBRG as expensive and disruptive, but the necessary risk management has been severely detrimental to the international student experience.
7. In January 2014, NUS surveyed over 2000 international students about their perceptions of the immigration bill. 50% of non-EU students surveyed found the current UK government unwelcoming. 18% would not recommend the UK to a friend or relative, as a place to study.

8. 74% of non-EU students stated that access to free healthcare was important to the and 73% identified the proposed health levy as a detriment to studying in the UK.
9. PhD students in particular were more likely to state that the Immigration Bill would impact them negatively.
10. A NUS survey in 2011 of 3,379 STEM students found that the availability to work or a period after their studies was incredibly important in their decision to study in the UK. 75% would not have chosen to study in the UK if the post-study work visa option was removed.
11. A NUS survey of 198 STEM students on employability in 2012 found that 95.5% of students felt gaining work experience during their studies was important to them. However, only 59.2% felt gaining work experience relevant to their chosen career was easy.
12. Of those surveyed, 45.3% would not recommend the UK to a friend because of the work experience and employment opportunities available.
13. NUS is concerned that with international student numbers dropping and the prominence of STEM students in those numbers there is a considerable threat to STEM in the UK from this decline.
14. With continued negative proposals including the recent policy proposals within the Immigration Bill, it is difficult to see how the UK can either retain international students effectively or compete for international students with countries such as Australia, Canada and the United States.

### **The Impact of Immigration Policies on International Students**

15. NUS believes UK immigration policy over recent years has combined perpetual policy changes with inflexible compliance structures to create a confused and complex system for both international students and education institutions. The continuous uncertainty in both Home Office and wider governmental policy has had a significant and negative impact on both the international student experience and perceptions of the UK education sector internationally.
16. Despite indicating in July 2013 that there would be “no future major policy changes” and a “period of stability,” the UK government has introduced yet another set of changes to immigration policy, many of which will affect international students more so than many other groups (credibility interviews being a prime example).<sup>93</sup>

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<sup>93</sup> Final Report: Cost and benefit analysis project on immigration regulation: Higher Education Better Regulation Group (11 July 2013)

17. While the UK government's focus since 2010 on short-term political gain from immigration reform created a rapidly changing and confused system, the number of **Tier 4 visas issued between 2010 and 2013 has declined by over 36%.**<sup>94</sup>
18. In January 2014 the first ever decline in international student numbers studying at higher education institutions in the UK was announced. **There was a fall of one per cent, the first of its kind since the records began, which rises to a fall of 4.5% when the contribution of China and Hong Kong are removed from statistics.**<sup>95</sup>
19. NUS is deeply concerned that projections of growth in higher education institutions by the Department for Business, Innovation and Skills (BIS) and the Higher Education Funding Council for England (HEFCE) in 2009 and in 2013, predicated on substantial increases in student numbers, will now no longer be accurate. Many of these projections were contributions to research, intellectual property, facilities and equipment, which are fundamental to STEM subjects in our institutions.

### International Students in STEM

20. The HESA statistics for 2009/10 suggest that overall, non-EU international students were 10.6% of the STEM student population. By 2011/12 that number was 11.75%.
21. However, this tends to be concentrated at the postgraduate level. Non-EU students are prominent on full-time research degree programmes and even more so on full-time taught higher degree programmes. In 2011/12 non-EU international students made up 43% of the full-time postgraduate research body (HESA 2011/12) and are particularly concentrated in STEM-related disciplines.
22. The impacts of immigration policies specifically on STEM students are difficult to monitor. Organisations such as Universities UK (UUK), the UK Council for International Student Affairs (UKCISA), and i-graduate through the International Student Barometer<sup>96</sup> monitor both numbers and international student opinion in different ways. The Higher Education Statistics Agency (HESA) gathers data on international students each year, which it shares with institutions, relevant stakeholders and in some cases, publically. The last comprehensive survey of how international students feel about their experience holistically was in 2004 by UKOSA (now UKCISA). This survey, the *Broadening Our Horizons* report, was undertaken with largely public sector higher education students and has been the only major report to address immigration advice for international students.
23. NUS has undertaken six surveys of international student opinion on the changing elements of immigration policy since 2010. Our most recent survey, which is currently ongoing, reveals international student opinion is not favourable to current immigration policy. For the purposes of this call for evidence we pulled survey data for 2057 responses from EU and Non-EU students. Our survey to date reveals that

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<sup>94</sup> ONS.

<sup>95</sup> HESA.

<sup>96</sup> <http://www.i-graduate.org/services/international-student-barometer-and-student-barometer/>

over 50% of non-EU students surveyed found the current UK government unwelcoming. 18% would not recommend the UK to a friend or relative, as a place to study.

24. Immigration and visa issues have considerable impact on an international students' choice of study destination. Research by Hobson's in May 2013 looked at the perceptions of over 70,000 prospective international students. They identified the ease of getting a visa to as a clear influencing factor over the ability to get permanent residency after study. The top three influencing factors for students in selecting their destination country were ease of getting a visa to study, the ability to work during study, and the ability to work in a country post-university. 88% of respondents indicated they may switch destination country if visa regulations are tightened. What the Hobson's research was also able to clearly identify was that "students who choose not to come to the UK did so largely because of their *perceptions* of visa restrictions including post-study work options (24%), ease of obtaining a visa (24%) and ability to work whilst studying."<sup>97</sup>
25. NUS surveys asked international students to specify their subject area and as such we are able to provide evidence of their views on specific policies and also on the attractiveness of the UK for STEM respondents. The overall trend from the surveys is that international STEM students are very sensitive to immigration policy changes.
26. NUS surveys suggest international students have chosen the UK for the opportunities it provides, and given the significant emotional and financial investment they have made want to feel welcome and respected when they arrive. Changes to immigration policies mid-way through their studies which alter the benefits they believed they were entitled to for choosing the UK, can create a negative view of both their studies and the UK and impact greatly on their student experience.

### Immigration Policy

27. The NUS survey of recent proposals from the immigration bill suggests that unfortunately, these two statements by the same government are incompatible.
28. Reflecting on research from the British Council on the evaluation of the Prime Ministers Initiative, NUS agrees with the Council that the key to attracting and retaining international students is to make them feel welcome, and not simply for their fees. Indeed, we would like to see the UK give "the red carpet treatment" to quote David Cameron. However, successive inquiries into international student opinion suggest international students do not feel welcome:
- a) 2009/10 - Institute of International Education (IIE) with the US Department of State's Bureau of Educational and Cultural Affairs and Education USA indicated "over two-thirds (69%) of respondents worldwide felt that the United States welcomes international students, as compared with 42 per cent for Canada, 34

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<sup>97</sup> Hobsons. (2013) Competing Globally: Understanding the decision making processes of prospective international students. May 2013

per cent for Australia, and 33 per cent for the United Kingdom.”<sup>98</sup> (9000 responses)

- b) 2013 – UK Department of Business, Innovation and Skills. “many in the international HE sector (in the UK and elsewhere) view these as new ‘restrictions’ on international study in the UK, including reduced rights to employment in the UK after study.
- c) In a modern inter-connected world where students, prospective students and their influencers are involved in many social networks, perceptions of tighter immigration controls may for some paint a picture of an unwelcoming student destination. Such perceptions have been linked with recent significant declines in student enrolments in the UK from certain source countries.”<sup>99</sup>
- d) 2014 – NUS survey of 2057 international students (to date) indicates over 50% of non-EU students surveyed found the current UK government unwelcoming.

29. NUS feels the successive changes to UK immigration policy, those which both directly and indirectly impact international students, have had a predictable negative impact on the international student experience and on international student numbers.

30. The UK government is aware of the negative impact from many of the policies as not only the BIS research above suggests. The National Audit Office found the implementation of the Tier 4 Points Based system not value for money, not supporting economic progress and non-compliant in many of their assessments.<sup>100</sup>

### **Immigration Rules and Sponsor Compliance**

31. Both the National Audit Report and a report by the Higher Education Better Regulation Group in July 2013 identified the continuous policy changes as both disruptive and expensive to students and institutions, as well as making it difficult for sponsors to ensure they are compliant.

32. As of March 2012 141 sponsors have had their license revoked and NUS has been involved in assisting the students in at least three other sponsor revocations. Not only is this resulting in the potential financial and emotional loss for several thousand genuine students, through no fault of their own, but it is creating a culture of fear regarding compliance rules.

33. The nature of compliance actions has been identified as a cause for concern by the National Audit Report, which estimates by March 2012 there were over 5000 students who were unable to find another place to study after their college lost its

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<sup>98</sup> Institute for International Education, *Project Atlas: Trends and Global Data, 2011* <http://www.iie.org/en/Research-and-Publications/~media/Files/Services/ProjectAtlas/Project-Atlas-Trends-and-Global-Data-2011.ashx>

<sup>99</sup> BIS RESEARCH PAPER NUMBER 128. *The Wider Benefits of International Higher Education in the UK*. SEPTEMBER 2013

<sup>100</sup> Report by the Comptroller and Auditor General. *Immigration – The Points Based System – Student Route*. National Audit Office. March 2012.

sponsor license due to the agencies inflexibility and sponsors confusion over what the UKBA at the time required.

34. The result of this confusion and inflexibility has another impact on the international student experience. Risks are being managed in extreme ways with the issue of attendance monitoring becoming a deterrent for students. NUS has received complaints from PhD students who, despite accessing their labs daily with their university IDs, have to travel 25 minutes by bus to another campus to have their passport photocopied by an administrator each week. Other students are asked to take time out from industrial placements to do the same at another institution despite no concerns from the placement of non-attendance. The most disturbing concerns have come from London campuses of two major public institutions where international students have found themselves subject to fingerprinting at each lesson to ensure attendance monitoring was being undertaken. These two campuses are almost exclusively international students and the same practice has not been introduced for any other campus of either of these institutions.
35. NUS expressed concern in 2012 when the UK introduced limitations on the maximum number of years visa holders could study on courses at degree level and above. Regardless of the length of their degree, Tier 4 visa holders were restricted to maximum five years of study with exceptions for some courses and PhD students. This significantly impacted students on courses in Scotland as their undergraduate courses are 4 years long, limiting access to many combined masters and postgraduate study.
36. NUS surveyed students in Scotland ahead of this change (January-March 2012) and received 381 responses, 215 of which were from STEM subjects. While only 15% of the students surveyed would not recommend Scotland as a place to study before the change, this rose to 38% after the visa length change was introduced. In addition, the removal of the post-study work visa at the same time made 69% of students less likely to recommend Scotland as a place to study.

#### **Immigration bill 2013/14**

37. NUS's survey of international student perceptions on proposals of the immigration bill, which closed on January 31<sup>st</sup>, shows the new proposals could have a considerable impact on international student numbers and experience. While the received over 3000 responses, 2057 responses were pulled mid-January in response to this call for evidence. This included 1587 non-EU student responses and 470 EU student responses from a wide range of institutions. Of those surveyed:
  - a) 64% of non-EU international students said an increase of £150 per year of study to their upfront visa imposed by the proposed NHS levy would make it more difficult for them to study in the UK. 9% said they would not be able to study at all.



- b) 74% of non-EU international students said free access to healthcare was either very important (44%) or important (30%) to their decision to study in the UK.
  - c) 18% of non-EU international Students would not recommend the UK to a friend or relative as a place to study.
  - d) 25% of non-EU international students and 28% of EU international students felt their international background has had a negative impact on their ability to find quality accommodation while they study.
  - e) 40% of non-EU students and 44% of EU students indicated that a policy which required landlords to check immigration status would negatively impact their choice to study in the UK if it was in place when they were applying to college or university.
38. The immigration bill proposals, according to our survey, would disproportionately impact students studying at the PhD level:
- a) 70% of non-EU PhD students said an increase of £150 per year of study to their upfront visa would make it more difficult for them to study in the UK. 10% would not be able to study at all. 80% of the PhD students in our survey indicated they would be directly impacted by an introduction of such a fee.
  - b) PhD students are one of the only non-EU international students permitted to bring dependents into the country the increase in fees would have a more significant financial impact on these students. 67% of those who brought dependents said an increase of £150 per year of study to their upfront visa would make it more difficult for them to study in the UK. 12% said they would not be able to study if such a fee was introduced.
  - c) In addition, 47% of students with dependents indicated that a policy which required landlords to check immigration status would negatively impact their choice to study in the UK if it was in place when they were applying to college or university.
39. NUS is concerned that as international students make up 43% of the full-time postgraduate research body (HESA 2011/12) and are particularly concentrated in STEM-related disciplines, these proposals will have an even more disproportionate impact on STEM PhD students.

### **STEM International Students and Immigration Policies Related to Employment**

40. NUS believes that although the UK has some of the best academic institutions in the world, the incentives the UK offered has deteriorated significantly in recent years. In 2011, the Post-Study Work route was closed. The UK has replaced this with a Tier 2

route which has experienced numerous difficulties and has been found to be both inaccessible and less competitive than the offer provided by competitor countries.<sup>101</sup>

41. In contrast, the United States allows STEM graduates to work for 29 months after their studies and is currently looking at legislation to provide permanent visas. Canada allows students access to work experience of up to a maximum of three years and is looking to promise 10,000 permanent residency visas. Australia and New Zealand have similarly attractive work routes for students after their studies have completed.
42. NUS (2011) surveyed 7,878 international students, of which 2,598 studied STEM subjects and 781 medicine and related subjects, on the closure of the post study work visa. The majority of these students were either Postgraduate Taught or Postgraduate Research student. The results specifically for STEM students were:
  - a) STEM students were more likely to find the availability of the post-study work visa as important in their decision to study in the UK. 77% stated it was very important and 16% stated it was fairly important.
  - b) This was significantly higher for PGT students. 80% stated it was very important and 15% stated it was fairly important.
  - c) 84% of STEM students stated they were planning on using the post-study work option in the UK.
  - d) STEM students were more likely to say that they would not have chosen to study in the UK if the post-study work option was removed. 75% stated they would not. This was again higher for PGT students.
43. NUS (2012) surveyed 1010 students of which 198 studied STEM subjects at Higher Education students. Of these students, STEM students responded with the following to the NUS survey:
  - a) 62.3% came to the UK for opportunities to work after their studies. 71.3% to improve their job prospects back home. 75.4% because of the quality of UK education.
  - b) 95.5% felt gaining work experience during their studies was important to them. However only 59.2% felt that gaining work experience relevant to their chosen career was easy to achieve.
  - c) Only 20.7% of students felt that they were very confident that they would be able to find employment in the UK after completion of their studies. 50.7% were a little confident and 28.6% were not at all confident.

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<sup>101</sup> A study by the British Council (2012) into the impact of similar policy changes by the US and Australian governments during the previous decade indicated that comparable initiatives resulted in a decline in international student enrolments. In our view, recent visa reforms place the UK in an equally vulnerable position.

- d) However, 33.9% expected their starting salary to be less than £20,000 which is the current Tier 2 threshold.
  - e) 88.8% felt that STEM graduates should be able to seek work in the UK after a period of time without having to find immediate employment.
  - f) 74.1% felt that they should be able to find employment without having any salary threshold imposed.
  - g) 45.3% would not recommend the UK to a friend because of the work experience and employment opportunities available.
44. Loughborough University (2013) surveyed 585 international students between October 2012 and 2012 with a good sample of STEM students. It found that overall:
- a) Almost 50% felt post study work opportunities were either the most important or important to their decision to study in the UK.
  - b) 55% did not feel the visa application represented good value for money.
  - c) 40% said the difficulty they experienced getting a visa to remain in the UK made either an extremely important or an important impact on their reason for leaving.
  - d) While 70% would recommend the UK to study, only 33% would recommend it for skilled work and only 11% would recommend it for a business start-up.
45. The report recommended modifying the rhetoric on immigration as survey respondents were well aware of the opportunities available in countries such as the US, Canada and Australia.
46. Many students NUS surveyed in 2012 left comments and case studies that we can share with the committee. Below are a few we feel would provide a greater insight into the impact of immigration policy on international STEM students:
- a) “Students pursue international studies in the hope of getting a quality education, improving job prospects, and in the process make some money. It's a two way process as the international students contribute high economic benefits to UK in the form of taxes and the huge amounts of tuition fees and moreover they also form a reasonable chunk of labour force in UK. With many other countries, such as Germany, offering great work options I would definitely not recommend UK to any my friends as a study destination” 23, *South Asia, Biological Sciences*
  - b) “I'm just disappointed with the removal of post study visa. I'm finishing my studies this May 2012 and they closed it on April 2012. I had I hopes and dreams and now, it is just things that won't happen. I stayed here legally and obeyed all the rules. When I applied for placement, I noticed that even though, I was more qualified than the rest of the candidates, they still chose UK citizens. There was

even one company that sent me an email that, they will choose UK citizens first before considering my application, not taking into account my qualifications. I'm afraid of what will happen to me after graduation because I don't know how to pay back my sister for the money she lent me for my tuition and going back to my home country and working there will take the rest of my life paying for what I owe." 28, *South East Asia, Mathematics*

- c) "I am of the view that international students should be given the opportunity to gain some experience in the UK after their studies especially those in very technical fields unlikely to obtain that experience in their home countries as graduates. Employers all over the world want to hire people with experience, therefore to find employment in the country where you obtained your certificate to acquire the requisite training and experience will better enhance your prospects back home. Therefore to curtail this opportunity is a great disincentive not only to prospective students but also to the UK educational institutions that are competing with those in other countries. The idea of giving permit on the basis of salary is quite difficult to comprehend since not all graduates will be fortunate to secure high earning employment. They may earn well below the stated level but nonetheless, gain the experience they desperately need to return to their countries and be competitive in the job market." 28, *Africa, Engineering*

47. NUS believes that STEM graduates are finding it difficult to employment in the UK for a variety of reasons. The key reasons identified by the qualitative evidence in the surveys we have conducted are threefold. First, the short time period students are given to identify a job and a sponsor. Second, the fact that most of the employers they encounter do not have Tier 2 licenses and therefore cannot sponsor them (including large companies). Third, the restrictions which link Tier 2 limits to specific salary limits such as £20,000. Students in rural regions and some urban regions outside of London found the salary limitations particularly difficult. Many wanted to stay and work in the area they studied and found finding a job over the salary limit, with a company which held a tier 4 license "impossible."

### **Do International Students have enough support and guidance on Immigration Rules?**

48. As identified by the National Audit Office and the Higher Education Better Regulation Group, the changing immigration policy and associated guidance has created confusion for higher education institutions, and a lack of efficiency for the Home Office.
49. Prior to the introduction of Tier 4, most non-EU international students had indicated they had received pre-departure information about immigration, within only 7% saying they had not received any at all.<sup>102</sup> In an NUS Scotland survey of non-EU students studying in Scotland in 2012, only 56.3% of international students said they had information on visas and immigration before coming to Scotland and 33% wanted immigration and visa advice. 20% of students surveyed by NUS Scotland wanted more support with visa and immigration queries.

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<sup>102</sup> UKCISA, 2004

50. While NUS believes prospective international students need more clarity on immigration rules, and support to access the visa system at various points before and during their study in the UK, we understand the difficult position of many institutions. Guidance for sponsors and students for several years was changing on a weekly or monthly basis. Since the significant changes in 2012 these changes became less frequent.
51. Since the dismantling of the UKBA and the introduction of the UKVI, sponsors and NUS have had better access to civil servants dealing with the confusion of guidance available but information is still not clear enough on several areas.
52. Student Union advice centres are still unsure about volunteering guidance for international students and many HE institutions have expressed concern about their confidence to give accurate information on working rights and transitioning to a Tier 2 visa. Until there is improved clarity and consistency in the immigration rules, it will be difficult for any institution to provide accurate and helpful support to students.

### **International Students are confused due to the changing reputation of the UK – The Unintended Communication**

53. Concerns have been expressed at a variety of forums within government that recent visa changes such as re-introduction of credibility interviews, have placed the UK in a further vulnerable position in global competition for international students.<sup>103</sup>
54. NUS interprets these concerns over changes such as the post study work route, reduced entitlement of international students to work in the UK and proposals for NHS charges as a further confusion for prospective and current international students. We have already seen private health insurance companies advertising that “soon” international students will be required to have private health insurance, when that was only an option expressed in the consultation process.
55. Similar policy changes by the US and Australian governments in the past 10 years resulted in a decline in international student enrolments. As the Hobson’s research suggests, perception is key for international students, and concerns for student numbers should raise concerns for the information international students are receiving and its impact on their understanding of immigration rules and guidance.

### **Conclusions**

56. The Higher Education Funding Council for England (HEFCE) suggested the sector is projecting an average real terms increase in non-EU fee income of 24.5% between 2011–12 and 2014–15.<sup>38</sup> With numbers clearly decreasing, these projections will have to be reconsidered.

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<sup>103</sup> APPG Migration, 2012; ONS 2012

57. NUS is concerned that with the international student numbers dropping and the prominence of STEM students in those numbers there is a considerable threat to STEM in the UK from this decline. 24% of all student studying engineering and technology are non-EU international students, a further 8% are European Union students, who will be impacted by proposals such as landlords checking immigration status. It is clear that international students are vital for keeping certain university courses running, especially STEM subjects.
58. With Australia, Canada and the US looking like popular choices with excellent reputations, and are taking the initiative to do the opposite of many UK immigration policies and such a significant number of international students suggesting they will switch university if visa regulations are tightened, NUS is greatly concerned for the future of international students in the UK.

**Further information**

59. NUS would be very happy to provide any further information that might be helpful to the committee, or to give oral evidence.

*5 February 2014*

**National Union of Students (NUS), Ian Bradley, The University of Manchester and Philip Lockett, London South Bank University – Oral evidence (QQ 16-31)**

*Evidence Session No. 2*

*Heard in Public*

*Questions 16 - 31*

TUESDAY 4 MARCH 2014

Members present

Lord Krebs (Chairman)  
Lord Dixon-Smith  
Baroness Hilton of Eggardon  
Baroness Manningham-Buller  
Lord O'Neill of Clackmannan  
Lord Peston  
Earl of Selborne  
Baroness Sharp of Guildford  
Lord Wade of Chorlton  
Lord Willis of Knaresborough

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Examination of Witnesses

**Daniel Stevens**, International Students' Officer, National Union of Students, **Ian Bradley**, Head of Academic Services, Engineering and Physical Sciences, University of Manchester, and **Philip Lockett**, Pro-Dean, Faculty of Engineering, Science and the Built Environment, London South Bank University

**Q16 The Chairman:** I welcome our witnesses for this first evidence session today, and in a moment I will invite you to introduce yourselves briefly for the record. If you wish to make any opening comments, please feel free to do so, but also, please do keep your comments very brief because we have a lot of discussion ahead of us and we do not have a huge amount of time. We would like to leave time for us to put questions to you, and for you to respond to them. As you know, we are very interested today in hearing from you about trends in the numbers of international students coming to the UK—and to your institutions in particular, for the two witnesses from particular universities. Later on, we want to ask about changes in immigration policy that might have influenced those factors and the changes in numbers. Perhaps I could ask Philip Lockett to kick off and introduce himself, and then the other two witnesses.

**Philip Lockett:** My name is Philip Lockett. I am Pro-Dean (Academic) for the Faculty of Engineering, Science and the Built Environment at London South Bank University.

National Union of Students (NUS), Ian Bradley, The University of Manchester and Philip Lockett, London South Bank University – Oral evidence (QQ 16-31)

**Daniel Stevens:** I am Daniel Stevens. I am the International Students' Officer at the National Union of Students. I am a Brazilian who has also studied at both undergraduate level and postgraduate level in the UK. The NUS, as representatives of international students, really would hope to make clear the argument—both through our experiences talking to international students and our extensive research—that the current immigration policies are clearly deterring international STEM graduates. They are also providing a really detrimental experience to the international STEM graduates currently studying in the UK. We are just incredibly concerned with the way international students have been politicised. There needs to be a dramatic change in the way international students are treated, so we really do welcome this inquiry at this time.

**Ian Bradley:** I am Ian Bradley. I am the Head of Academic Services for the Faculty of Engineering and Physical Sciences at The University of Manchester.<sup>104</sup>

**Q17 The Chairman:** If I may kick off, in doing so, I wish to declare an interest, in that I am the Principal of Jesus College, Oxford, and therefore part of Oxford University, and we have a large number of international students, at both undergraduate and postgraduate level. What I would like to do first of all in this opening question is really to understand—particularly from the two representatives of particular universities, but also from Daniel Stevens—about the actual changes in numbers of students in STEM subjects coming from outside the European Economic Area to the UK. I would like, perhaps, to start by asking Philip to describe, for your institution, in your experience, and perhaps also more generally for the sector if you have broader information, what the trends are in numbers of students coming in, in relation to particular subjects and particular countries of origin.

**Philip Lockett:** Certainly for South Bank University, we saw steady growth in international students until 2009-10. Then, there was apparently quite a significant drop-off of something like 15%. Since then, we have seen a return to slow growth. Now, we are perhaps 10% down on where we were in 2009-10. I would describe that as plateau-ing. We were seeing good growth, and then it has become much more difficult to increase student numbers, but we are roughly maintaining them.

**The Chairman:** Is that particular to STEM or is it across the piece?

**Philip Lockett:** That is across the piece. It varies a little once you get down to the subject level, but when you start looking at subject levels within the university, then you get random effects coming in. For instance, we are doing quite well on petroleum, but that is because that is Nigeria and Qatar, and we have contacts with institutions or companies there. I get quite nervous about drawing trends from individual subject data, because you are often talking about a maximum of 50 students in one particular subject area.

**The Chairman:** Would you have similar reservations about teasing out particular countries of origin?

**Philip Lockett:** The big one I would single out is India. Certainly, as a university and in STEM, we have seen big reductions coming in from India. I was looking at the statistics provided to a previous meeting. They pretty much describe what is happening at London South Bank University in terms of some growth here, some growth there. Again, at the subject level, you

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<sup>104</sup> The University of Manchester currently has (as of 1 December 2013) just under 3,000 international STEM students – which is probably one of the largest (if not the largest) number by volume in the UK – with over half that number being in the area of "Engineering & Technology".



National Union of Students (NUS), Ian Bradley, The University of Manchester and Philip Lockett, London South Bank University – Oral evidence (QQ 16-31)

sometimes see spectacular increases, but that is due to a contact with an institution or a company.

**The Chairman:** I would like the others to come in in a moment. Can I just also tease out, in terms of the impact on the business model of your university, how important international students are for some of the courses that you are running?

**Philip Lockett:** For some of the courses, quite important, particularly petroleum engineering and chemical engineering, where up to half the cohort can be international. In terms of our overall numbers as a faculty, about 15% of our full-time numbers are international. The faculty also has rather large part-time numbers, so, if I look at headcount, it is more like 10%. It is important, and we would like to grow it, but it is not our main business.

**Q18 The Chairman:** Perhaps I will turn to Ian Bradley to tell us about Manchester, and then ask Daniel to come in from an NUS perspective.

**Ian Bradley:** Over the last couple of years, we have seen different patterns of recruitment to STEM subjects at The University of Manchester. Just picking up on one of Philip's comments, I think it is India where we have seen the most drastic drop. We have seen around a 61% decrease in Indian students over the period from 2010 to 2012. We have also seen significant drops from Nigeria and Pakistan. We are concerned, as I said, particularly about India. Obviously, India is an important market for the UK in terms of inward investment coming in and the links with India. We have probably seen a slightly larger decrease in STEM subjects than other parts of the university as a whole. There is a line that says that STEM subjects are being slightly more affected than other areas. What we see seems to be consistent with data, particularly in the engineering area, from the Engineering Professors' Council, for example, where they have also seen a drop. Probably the most marked drop is at postgraduate level, particularly for master's courses, PGT. However, we are seeing a slightly worrying drop over the last couple of years in terms of PGR recruitment as well, which is obviously important for research and development.

**Lord Wade of Chorlton:** What is PGR?

**Ian Bradley:** PhD students, so postgraduate research students. Sorry, I should have said that. Similar to Philip, we see our STEM students as important in terms of the intellectual addition that they make to us, particularly at postgraduate level, and, particularly for research, the outputs that they bring to us. Clearly, there is an income line as well, which is important, but it is also the contacts for the future that it provides us as a university and the UK as a whole. As we are wanting to attract the best and the brightest, these are likely to be the influencers of tomorrow.

The other thing I would say is that, when we look across all our STEM subjects in different areas, while we have seen some growth in some countries, we would expect to see much greater growth at present. In countries like Saudi Arabia, for example, we are seeing quite significant numbers going to the US and Australia. Going back to the Indian student numbers, I quoted a figure of around 60% for us; I think it is about 20-30% nationally. The US has increased its student numbers from India over the last year or so by 40%, and Australia by 20%, so it is clear that it is not a matter of Indian students not wanting to leave India to study; it is just where they are choosing to go.

**The Chairman:** Before I come to Daniel Stevens, just to go back to Philip Lockett, Ian Bradley made it clear in his evidence he was talking about both graduate students—PGT and PGR—and undergraduates. I forgot to ask you whether the evidence that you gave us would primarily relate to undergraduates or to postgraduates.

**Philip Lockett:** In terms of international numbers, our undergraduate numbers are holding up better than postgraduate. Postgraduate research has been increasing. The deliberate policy of the university has been to raise its research profile. Our international numbers at postgraduate research have gone up from 18% to 45% within STEM in the last four years, so there is quite a strong growth. That is deliberate policy. It is the postgraduate taught where we are being hit hardest in terms of international numbers.

**Q19 The Chairman:** Daniel Stevens, do you want to add anything about the numerical trends over time?

**Daniel Stevens:** Yes. From the national perspective, we know what the trends are by subsector, by nationality, and by subject area. Overall, the number of tier 4 visas issued—so the number of student visas issued—has declined by 36% according to the Office for National Statistics. Now, the problem is that there has been a disproportionate impact by subsector. If you look at further education, for example, the decline has been 80%.

**Lord Willis of Knaresborough:** In terms of the decline, what period are we talking about?

**Daniel Stevens:** We are talking about between June 2011 and September 2013. Further education saw a decline of 80%. In English language training, there was a decline of 83%. For independent schools—where international students come to do A-levels—there was a decline of 21%. You are seeing a massive decline, not at university level, but at pre-university level. This is going to have a huge impact down the line.

UUK found that 40% of international students come to university through pathway providers. They found that, in 2007-08, 46% of first-year undergraduate students had progressed from other UK education institutions. The Independent Schools Council found that 77% of independent students at UK schools go on to universities in the UK. In many ways, you will see a huge impact down the line that is not apparent now.

There has been a focus on university numbers, but what is happening at further education and before that is going to be quite critical. If you look at university numbers, for the second year in a row there has been a decline in first-year enrolments. This year, for the first time since the statistics have been recorded, the number of international students at universities has declined. It is only 1%, but if you remove China and Hong Kong, the number is actually closer to 4.5%. This is critical. The numbers from China are not sustainable because of the demographic shift in China. There is going to be a 50% decline in the 20-24 bracket in the next 10 years because of the one-child policy.

What is interesting is the trajectory. In 2010, there was a 12% increase in international students; in 2011, a 6% increase; in 2012, a 1.5% increase; and now a decline. It is almost a steep nosedive. To give you a comparison with other countries, in Australia, the number of international students has increased by 8%; in the United States, it has increased by 7%; and in Canada, it has increased by 10%.

Now, the data tables provided show that STEM has been hit harder. In computer science, in the past two years, there has been a decline of 33%, and subjects allied to medicine have

declined by 25%, to give a couple of examples. This has been more profound in PGT subjects. Postgraduate taught subjects are where you have higher concentrations of international students, so it is inevitably going to hurt STEM programmes a bit more. Numbers show higher drops in STEM subjects compared to non-STEM. STEM subjects fell by 8% and then by 3% in the past two years, compared to non-STEM subjects, which increased by 3% and then flat lined at 0%. If you go by individual countries, when you look at the numbers of Indian students on STEM programmes, there has been a 55% drop. In the numbers of students from Saudi Arabia, there has been a 35% decline; Nigerian students, a 5% decline; in the numbers from Pakistan, a 38% decline; from Thailand, a 3% drop recently; and a 0% increase from the US.

I just want to focus quickly on three countries: India, Nigeria and Pakistan. These have seen the largest drops. From our research, it is perfectly clear that this is because of the immigration policies. We did a survey of international students' perceptions of the UK. 50.7% of non-EU students think that the UK Government has been not welcoming, or very unwelcoming, towards international students. However, this was significantly higher for students from Nigeria, at 63%; India, at 62%; and Pakistan, at 56%.

Then, if you ask those international students, "Would you recommend the UK to a friend?", 19% say "No". If you look again at that question for India, Nigeria and Pakistan, the number was much higher: closer to 40% of the students from Pakistan, 37% of the students from Nigeria, and 35% of the students from India. We are seeing these students—who, predominantly, if you look at the figures, are more likely to choose STEM subjects—not choosing the UK. We think it is clearly because of the immigration policy.

**Q20 The Chairman:** We will delve more into the impact of immigration policies in a moment. Could I just ask the two members of South Bank and The University of Manchester respectively: when I asked about the impact on your business model, are there particular postgraduate taught courses that might become unsustainable if numbers of international students decline, have done, or might do in the future? Philip Lockett, is that an issue for South Bank?

**Philip Lockett:** We have certainly seen a decline in electrical engineering at postgraduate level. That is still just about sustainable, but it was much more buoyant, so we are seeing effects. Petroleum engineering is another large degree programme, with large numbers of international students. Because that is recruiting from Nigeria and the Middle East, we are not seeing quite the same declines as we are in other disciplines, so it is discipline-specific. Not all disciplines recruit equally from each country, so yes, but not large numbers of programmes. There are certain ones that are being hit. Electrical engineering is one that particularly comes to mind.

**Ian Bradley:** I have just realised that when I mentioned one of my stats earlier about the 60% drop for India, I should have said that that related specifically to postgraduate taught courses. In the short term, we are comfortable. However, in terms of the long-term business model, then yes, we would not be running many of our postgraduate taught master's courses if it was not for the international students that we have on the courses. That is pretty much the case for virtually all our STEM subjects, with one or two exceptions that still attract UK or "Greater EU" students.

**Q21 Lord Willis of Knaresborough:** Could I try to get beyond the statistics? They are a little baffling as cold statistics. What I am interested in, in this inquiry, is not just the quantity of students coming in, but the quality of them. Perhaps you could explain whether students are just getting a better offer from somewhere else; whether it is the best students who are going somewhere else; whether it is things like currency fluctuations, and therefore it is a better financial offer to go to Canada, the US or Australia; or whether it is the changing Immigration Rules that are causing it. If it is the former and not the latter, that really is a different question than if it is purely the Immigration Rules. Perhaps, Philip, you could start. Surely, students should be going to where they get the best offer.

**Philip Lockett:** Can I start by saying that I do not have lots of statistics to support what I am about to say? This is my experience from talking to students, if that is understood. The quality of international students coming in is not dropping; that is clear. I do not think it is a quality issue. If anything, it is going up slightly, in my view. What we are seeing is that other countries are perceived to be more attractive. If you think about how international students apply, they start by choosing their country and course; the institution is some way down the line. It is looking at their perception of that country. My concern is that the messages we are giving out are making students feel unwelcome. It is as simple as that. Sometimes, those messages are not accurate. It is not necessarily to do with the objectivity of the visa process. The visa process is reasonably fair. It is the perception that students have about how welcoming the UK is and what messages they pick up. I am afraid that, certainly in India, what goes into the UK press quite quickly appears in the Indian press. If we send out messages or perceptions that we are not wanting to attract international students, they will go elsewhere.

**Lord Willis of Knaresborough:** Before I go on to both David and Ian, let me just tie this down very briefly: would you accept that it is not the Immigration Rules themselves that are the main problem here?

**Philip Lockett:** Yes, I would accept that.

**Daniel Stevens:** I would disagree completely and say it is the Immigration Rules, and give a clear example. 100 students from the Science Without Borders programme, a flagship Brazilian programme to bring Brazilian students here to the UK—completely funded by the Brazilian Government—were turned away. They were turned away because they did not meet the minimum English language requirement, even though the universities themselves thought that the students were more than capable. Because of a Home Office-imposed requirement, some of the brightest students from Brazil could not choose the UK to come and study. This is a clear example of immigration policies deterring students.

**Lord Willis of Knaresborough:** So should we accept students with poor English?

**Daniel Stevens:** I think that universities are best placed to determine who is best suited to go on to a course. These are students studying STEM subjects, where you may not need the higher level of English language that, perhaps, the Home Office expects. These are students from the Brazilian Government who are only going to go to the best programmes for STEM in the UK.

**Q22 Lord Willis of Knaresborough:** Are there other examples that you can point to where, specifically, Immigration Rules are causing students not to come here?

**Daniel Stevens:** I can point to nine examples.

**Lord Willis of Knaresborough:** Just do a couple.

**Daniel Stevens:** A couple, sure. In terms of current students, students in London had to queue overnight to register with the police at Borough. You had students as young as 17 having to literally queue overnight, because the capacity to register students with the police was not sufficient.

**Lord Willis of Knaresborough:** That is not the rule, it is? That is the process following the rules.

**Daniel Stevens:** It is difficult, because the process and the rules are tied together. You have to go through this process anyway if you want to come to the UK. You have the issue of credibility interviews that are now being introduced. I have the example of a student who had to travel 400 miles twice in Pakistan: once to get his biometrics taken, and the other time to follow up with another credibility interview. You have the fact that the Home Office is now imposing attendance monitoring requirements, so you have PhD students who are having to travel miles to check in that they are still studying on their course. You have ATAS; a lot of students studying courses have to get clearance from something called the Academic Technology Approval Scheme. It is taking nine months for this clearance to come through.

**Q23 Lord Willis of Knaresborough:** Can I just stop you there? It would be useful if you could let the Committee have that list of things. I do not want to be rude to you, but clearly it would be better for us to have that in writing. Then we can include that as a piece of hard evidence. Can I go on to you, Ian, and ask that same question? Do you think it is the rules, rather than the perception, causing the problem?

**Ian Bradley:** It is probably a bit of both. It is probably about 70% perception, and 30% rules.

**Lord Willis of Knaresborough:** Which are the rules that are causing problems?

**Ian Bradley:** The big rule was the removal of the post-study work visas. That particularly affected India and one or two other countries. I understand aspects of why it was removed, but it was not that thousands upon thousands of students were taking it up. It was actually the opportunity, and the thought that, if they were able to secure a job, they could stay in the UK for a year afterwards. That has had a major effect.

**Lord Willis of Knaresborough:** Let me challenge you on this, because you now have the open application for Tier 2s, which are not restricted. Why is that not being used, then, as the clear alternative? You have PhDs who can stay for another year for a job. You have the post-doc salary scheme. There is plenty of stuff here. Why is this not working?

**Ian Bradley:** You would probably need to approach some employers for the direct answer. Certainly, the evidence that our careers service has is that a significant number of what are graduate-level jobs do not pay the required starting salary. A poll was taken of employers who were coming to the University to recruit graduates towards the end of the year. A significant portion of them—and this included some high-street brands—were not prepared to support Tier 2 sponsorship, so there is a concern. Yes, some companies are, but many of them are not. I think about 40-45% were not.<sup>105</sup> The other area, particularly when we are

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<sup>105</sup> This figure actually comes from The University of Manchester's Faculty of Engineering & Physical Sciences submission to the Inquiry where it stated in point 8.5 that: "Turning to salaries, during the year 1st February, 2013 to 1st February, 2014 the Careers Service at The University of Manchester advertised over 2000 graduate jobs specifically targeting STEM

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looking at STEM, is the SME (small and medium enterprise) community. These are often the companies that are not able to pay the same competitive starting salaries, but are offering very good jobs and are also at the heart of our recovery.

**Daniel Stevens:** If I can just jump in and add one quick thing, a student e-mailed me today about this inquiry and said, “I can give you a great example of how the current Tier 2 system is not working. I came with a cohort of 300 Indian students to the UK. Only 10 to 12 of us managed to actually stay on and get that work experience after the studies, even though many, many tried”. The fact is that you have Tier 2 but, as Ian pointed out, it is not working for a variety of reasons. We are selling students this; we are saying, “Come here, you can work after your studies”, when the reality is that the number of jobs available is so incredibly small that many cannot. They feel let down by the UK after being told that this is an option.

We have done many surveys of students that point to the fact that this is, as Ian pointed out, one of the critical factors why the UK is not being perceived to be attractive. We did a survey of 8,000 international students, 2,600 of which were STEM. 75% said that they would not come to study in the UK if post-study work was removed. We then did a survey a year after the removal of post-study work, and out of 1,000 students that were studying in the UK, 45.3% would not recommend the UK to a friend because of the work experience and the opportunities available. That is for many reasons. There is the short time period students are given to find a job.

**Philip Lockett:** I would agree that the view that the loss of the work-study visa has affected recruitment. It is one of those where we are perceived as less welcoming.

**Lord Willis of Knaresborough:** Is that because we have not sold the other alternatives?

**Philip Lockett:** Well, no. Can I talk about the other alternative? The problem is that the previous work-study visa meant that an employer could simply interview you and offer you a job. The new rules mean that not only do they have to do that, but they have to then go through the bureaucracy of getting a Tier 2 visa, which is not always easy. There are many additional processes that an employee goes through, so the inhibition for an employer to take on international students is much higher. There is much additional bureaucracy, so they are simply not going to do it. You would have to be committed to, perhaps, developing your international exports, and so you wanted to get more knowledge of a particular country and invest that additional resource in employing an international student. The idea that it is just available misunderstands employers who say, “Why should I bother? I can get a UK graduate. I do not want to go through all this bureaucracy”.

**Q24 Lord Willis of Knaresborough:** Ian, I was particularly interested in your opening comments, and Daniel has emphasised it. The problem seems to be mainly in terms of India, Nigeria and Pakistan, in terms of the student imbalance, if you like. What are universities doing, themselves, to actually correct that? In terms of India, the way in which Indian students finance their education here is quite unique. Could you just say whether you are doing anything in Manchester or, Daniel, whether there is stuff being done by other universities to address that unique problem of Indian students mortgaging their parents’ home to come here?

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students. Reviewing the salaries of the 900 opportunities, where salary was stated, the minimum salaries for Tier 2 visa sponsorship were met in only 55% of cases.”

**Ian Bradley:** You are right that India, Pakistan to an extent, and Nigeria to some extent, tend to be self-funding markets. Therefore, it is about the individual, or the family of the individual, providing the income. We promote the schemes that are there. We promote the Tier 2 option. However, it was much easier to promote the post-study work option because, in a sense, you could say to a student, “It is up to you to get a job. You have a year”, whereas, for the Tier 2, you could have the best and the brightest student, but, if the company they want to go and work for is not playing ball, that will not help them. We try to talk to our applicants and offer-holders, so that they understand what the situation is. We are still seeing Indian students coming, but we are seeing fewer than we could do otherwise.

Certainly at Manchester, as our international students have grown, we have also improved the careers support that we can give to students who are returning to their own country. The way that the job market works in the UK is very different from how it works in China, and is very different from how it works in India. India has much greater networking opportunities, and so it involves working with our alumni who are there, who had positive experiences, to help—maybe with internships or similar—our Indian graduates. It is all very well saying, “Come to the UK, spend your money here for a year and then go home”, but the thing that we are missing here is that, if we are looking for people who are going to be influencers and help UK plc in years to come, if those students were coming over here for a year or three—depending on what they are studying—and then working and being part of the culture and society for a year or two, and then returning home, they would be even greater ambassadors. I take your point, and we were pleased that PhD students are able to stay. However, it is particularly the postgraduate taught students that we are concerned with.

**Q25 The Chairman:** Can I just come back to a point? I think it was Daniel who mentioned earlier that while numbers of students coming in to this country from overseas, from certain countries of origin like India, have been going down, elsewhere—for example, Australia, Canada and the United States were mentioned—they have been going up. Is that correct?

**Daniel Stevens:** Yes.

**The Chairman:** One hypothesis that was presented to us by BIS officials in the previous session was that the changes that took place in numbers coming from India in particular were only coincidentally linked to changes in immigration policy, but might actually have been caused by changes in the value of the rupee against the pound. Now, unless the rupee held up its value against the US dollar, Canadian dollar and Australian dollar, it would seem to me that your figures speak against the argument that it was a currency fluctuation. Can you just respond to that? Daniel, I think you mentioned the figures, did you not?

**Daniel Stevens:** Yes. In the past, we have had extreme situations of currency fluctuations impacting on international students. My own MSc research points to this. However, this has never impacted on the overall figures in the UK. It has always been quite small. It can explain it to a certain extent, but the dramatic shift and the dramatic declines have to point to something else.

If I may, I will just quickly talk about what other countries are offering these students; it is quite significant. If you are an international student in the United States, they allow STEM graduates to work for up to 29 months after graduating. In Canada, international students are allowed access to the labour market for up to three years, and they are looking to give

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10,000 permanent residency visas to students who are going to Canada. Australia and New Zealand have similar, very attractive post-study work options. It is important to note that not only is our system for working after your studies very restrictive, but other countries are offering much more generous post-study work opportunities to these students.

**Q26 Baroness Sharp of Guildford:** I was going to ask about the bureaucracy linked to Tier 2, which you have largely answered. However, can I just add a rider to this? How far do you think that the Border Agency—which I know has now got a different name—is tougher on Indian, Pakistani and Nigerian students than they are on Chinese and Hong Kong students? For example, you were instancing the fact that in Pakistan they have to travel 400 miles in order to do the interview, and that they were required to do this twice. Now, does the same happen in China?

**Philip Lockett:** I would anticipate that the answer is yes, because there are only limited places that students can be interviewed, and China is a big country, so, yes. My perception is that we are not picking up huge variations in Border Agency officer decision-making. When students complain to us that they have been unfairly treated, we see quite a high consistency of process. I do not think we are seeing huge variations. I was talking to our international office; there are probably five to 10 cases a year where we think there is really quite poor processing. For most of the rest of the decisions, we can see why they were made. That does not necessarily mean we agree with the decision, but at least you can see a consistency in terms of the process.

**Daniel Stevens:** With the Immigration Rules, you have two sets of countries. You have low-risk and you have high-risk. These countries, from what we have been able to see, have been determined by something in the 1960s and have yet to change. Brazil is a high-risk country; Argentina is not. It is completely arbitrary, and has not been changed. Only high-risk countries have to register with the police, for example. So Indian students do not, but students from China do. It makes no logical sense. You see examples of this bureaucracy everywhere within the UKBA.

I can give you another example. There is no firm clarification from the Home Office that international students can volunteer. We do not know because they will not tell us. We have many examples of the Home Office not providing certainty about changes and not accommodating differences. They said in July 2013 that there would be a period of policy stability, and now we have the Immigration Bill. There are these constant issues. I will just say one positive thing about the Home Office; they have committed recently to providing better service standards for international students. We have had a good relationship with certain individuals but, unfortunately, they are trapped within this entire bureaucratic system.

I would like just to focus on police registration. After the incident in London, which had hundreds of international students having to wait upwards of 14 hours overnight, in the rain, to register with the police, we have yet to receive a decision on whether or not it will be scrapped. No one understands why this process still happens. We have been waiting for a decision for over a year, and it has to have ministerial approval. We are not able to receive it.

**Q27 Lord Wade of Chorlton:** To come back to a point mentioned earlier, Lord Willis made it clear that there are arrangements under the Immigration Bill where people can stay and



work, but that does not have anything to do with the availability of jobs, which is quite a different matter and applies just as much to UK students as it does to students from abroad. I do not quite see why you blame the immigration law for preventing people from getting a job, who otherwise are available to get a job. If the job is not there, there is no job for anybody. I must ask you, if you are so critical of Britain, why are you here?

**Daniel Stevens:** Well, to give you an example of why I am here, it is because my grandparents are British, and they moved to Brazil.

**Lord Wade of Chorlton:** Why do you not go away again, back to Brazil, if you think this is such an awful place?

**Daniel Stevens:** No, I think that the UK is fantastic. The education provided in the UK is second to none. The universities are world class. I have had a life-changing experience. If you ask international students, they just want to stay on for one or two years to get work experience to be able to be better equipped when they go back home.

**Lord Wade of Chorlton:** Surely, that is the point—if the job is available.

**Daniel Stevens:** Not necessarily. The reason they cannot get jobs is, as was pointed out, companies just do not have the sponsorship for international students. These are companies that want to recruit international students, like SMEs: small businesses that would, say, for example, want to break into a foreign market. It would be great if they had that Brazilian student or that Russian student. They cannot, because they just do not have the ability to sponsor that student. The second reason is that the salary limits are quite high. It is a minimum of around £20,000. Many graduates will not be earning that amount. The third issue is the fact that they just do not have the time to even apply for a job. If you are a postgraduate taught student, you have a year to do your course and, on the side, apply for jobs. Applying for jobs is a job in itself, so they just do not have the time.

The great thing about post-study work was that a student could stay here for a year or two years. If they did not get a job, that was fine, because that was up to that student's ability. It was fair. There were no problems. The problem that we have with the current system is that they do not even have a fair chance. That is all international students want, when we look at post-study work opportunities. They just want a fair chance to gain that work experience. If there are no jobs available, that is fine. I do not think that international students would be crying that there should be job creation, or the fact that they should get a job over a student in the UK. It is just a matter of fairness.

**Philip Lockett:** As I said earlier, the post-study work visa at the moment is biased very much against international students applying for work with UK companies. Many UK companies would be interested in taking on international graduates, because if they have any intention of exporting whatever their product or service is, then building relationships with people from that country is very useful. It gives them that opportunity to also understand more about the culture. My personal view would be, if you make it effectively up to companies to decide, rather than making it particularly bureaucratic with the post-study work visa, if they do not want to take on an international student because it does not fit their model, that is fine. I do not think you need to bias it in their favour. However, at the moment, it is so biased against taking on an international student that you really have to have a very strong case. What I am looking for are more opportunities for companies, if they wish, to take on international students, without the quite heavy bureaucracy of the Tier 2 process.

**Ian Bradley:** Certainly, when we looked at some of the data a few years ago, it was the perception of being able to get jobs. I cannot remember the exact stats. I was sitting here a couple of years ago with that information, but I can send it back in again. There was a survey of whether you wanted to stay and whether you did actually stay, and it was a small minority that actually ended up staying. It was something like only 19% of students, so it was partly a perception thing.<sup>106</sup>

It depends on the sectors you are looking at as well, in terms of what jobs are available. Take engineering, for example. According to an EngineeringUK document, what the UK needs—not what the world needs—is a doubling of engineers by 2020. Those are not, unfortunately, going to come from UK students as our current science policy stands. We and other universities try to encourage primary school, secondary school and A-level students to go into engineering, but it is very difficult. If we want to drive the UK economy forward, we are going to need other students coming in.

It may well be that we need to look at the forerunner to the post-study work scheme, SEGS, the Science and Engineering Graduates Scheme. That was targeted to certain sectors of the UK economy where there was a need for more employment, and where there were jobs available. It may well be that we need to go back and look at a step change.

**Lord Wade of Chorlton:** I agree we need a policy to generate more interest in the high-tech SME sector. It is a different policy statement from an immigration policy. That is the point I want to make. The two things are really different. Now, if you have views on how we can encourage Government to have a scheme that encourages the SME sector, particularly SMEs that will potentially export, to take on more students, I would be very much in favour of that. However, it is not the same as immigration policy.

**Ian Bradley:** Not directly, but the two have become linked.

**Lord Wade of Chorlton:** That is right—and probably wrongly.

**Ian Bradley:** Potentially, yes. Again, I think it goes back to the perception of the UK being a welcoming place.

**Q28 Lord Peston:** If you were to go into the Lords Library and look at all our newspapers, you would see that the majority of them would portray us as a nation of xenophobes. Their obsession against foreigners is unbelievable. I might add that I only read those papers to remind myself of what I do not myself believe. You were asked by Lord Willis whether there is anything the universities can do about this to create a different image. I would have thought, on the whole, that our universities are no different, say, from the Americans; they simply want the best students. I can tell you—my alma mater was over there—the Americans are rubbing their hands with glee at what this country is doing along the lines of the Immigration Bill and all that sort of thing, because nothing could help them more to get the best students than what we are doing. Now, is there anything the universities can do to say, “We really want you”, or is that a waste of breath?

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<sup>106</sup> The source of this data which was a survey of our international students—the International Student Tracking Survey—which tracked Manchester and a number of other universities. Within that survey there was a question about the awareness of post-study work routes. Of the 2010 graduates (as that was when the survey was done), 62% commented that before they came to study post study work was something of which they were very aware of. However, of those 2010 graduates, only 13% were actually recorded as being in employment in the UK post study. So this helps to support the perception that the post study work there, whereby students are thinking that it is something that may be an opportunity for them.

**Philip Lockett:** The problem is that a university cannot tackle a whole market or a whole country. You can build partnerships with individual institutions—South Bank is one of those that do; so do most other universities—but it has to be quite localised. The amount of resource we can put into this is limited. You cannot pretend you can influence a whole country, but you can influence an institution or a small group of institutions. At that level, we are operating, but we do not have the resources to do it at national level. How can we, as an individual university, or even as groups of universities, have the firepower that the Government does, in terms of its influence on the press? What goes into the press gets transferred to the press in other countries.

**Ian Bradley:** Certainly Manchester, and virtually every university, does a huge amount of international recruitment work. My Dean, Professor Colin Bailey, is in China at the moment on a visit, meeting a particular Chinese partner over there. The UK universities and the British Council do a tremendous job promoting UK plc around the world, and our alumni absolutely do an even more phenomenal job in terms of promoting UK plc, but there is only so far we can go. What we do not know are the students that we are not even getting to. The British Council will run a big exhibition, but the US and Australian equivalents will be running theirs too. We cannot see all those students, because they are going, “We are going to the US because it is easier to get a visa”. We have been very firm in trying to preserve the UK as a destination of choice in terms of high-quality education, and I think all the universities have been prepared to accept, if necessary, a reduction in student numbers to ensure that we preserve that. However, there needs to be a partnership between the UK universities and BIS, the Home Office, and the Foreign Office all together promoting the UK.

**Q29 Lord O'Neill of Clackmannan:** I am going to ask two questions, the first one to Daniel Stevens. Is there any difference in the downturn in numbers across the UK as a whole? Not every place is as expensive to live in as London, so if one went, let us say, to Newcastle or perhaps one of the northern universities where the cost of living tends to be a bit lower, would that not counteract any currency fluctuations?

**Daniel Stevens:** Yes, I think it will. I do not actually have that data, but I know that it is available and I can get back to you on that. My inclination would be that the numbers are down across the board, regardless of area. While living in certain regions of the UK is an issue, we actually find that London is more attractive to international students. You have that paradox there. However, I would say that I just do not think it is down to currency fluctuations. I would say it is because of the Immigration Rules.

**Philip Lockett:** Students are not that price sensitive. If you have a currency shift of 20-30%, yes, that will have an influence, but smaller changes do not. The cost of living is more expensive in London, but fees are quite similar across all universities. The cost of living is not that much different in the north. Because London is known—students apply for where they know the name and the location—it attracts a disproportionately high number of international students. Currency fluctuations, unless they are very large, do not have an impact, and I think you can overdo the sensitivity of students in terms of fees. It is other things that influence them.

**The Chairman:** Ian Bradley, you represent a northern university. You have alluded to a drop in incoming students from India in your university. Do you have any comment on cost-of-living differentials?

**Ian Bradley:** Not really. Arguably, the fees are a more significant figure for a student to cover, particularly for a self-funding student. Having visited a number of countries and exhibitions around the world, I know that, while students usually ask what the cost is, you do not tend to see people balking at that cost. They have done their research before they come, and they have a reasonable idea of what it is going to cost. Let us say, for argument's sake, that there is a difference of £1,000 between London and, say, Manchester, which it might well be, over the course of a 12-month period; that is not going to be the deal breaker.

**Lord O'Neill of Clackmannan:** I am in full agreement with my colleague Lord Peston. I do not think the British press is unique in its xenophobic tendencies. I was recently in Australia, and they have a press there—that is actively backed by a Government—that makes the present lot here look almost liberal. There have been particular incidents that have been given a lot of publicity in Australia. If the argument about the UK's treatment of foreign students has any relevance, then it ought to have relevance in Australia, where there have been some very disturbing and very highly publicised incidents of violence against foreign students. I just wonder how significant this actually is as an issue. It is probably more likely to be immigration policy, but I just want to make the point that I do not think the UK is unique in its antagonism towards foreign students.

**Daniel Stevens:** In terms of the press, I think the immigration debate has become very toxic—more toxic than I have seen it. Actually, you are right; there has been research to suggest that people's thoughts and perceptions of immigration have not really changed. The polls show that people were concerned about immigration 20 or 30 years ago, and that it has been framed in the same way. I would say, in terms of the immigration debate, the issue is the fact that international students are trapped in it. The general public do not view international students as migrants if you ask them, but they are trapped in the net migration target. They are the largest component of net migration, and they are the only group of migrants that the Government can actually target and change the numbers of. That is why I think you are seeing a lot of these policies; it is a bid to drive net migration down, even though it has increased spectacularly recently, which gives me fears about the Immigration Bill and what is going to come over the next two years.

**Q30 Baroness Manningham-Buller:** I need to declare two interests: one, I am Chair of the Court and Council of Imperial College; secondly, I am a Governor of the Wellcome Trust. It is the Immigration Bill I want to talk about. You know it is coming through Parliament at the moment, with two or three proposals that may be relevant. One is the surcharge for access to the NHS. Another is the requirement on landlords to check the immigration status of tenants. You have all, in different ways, made it pretty clear that you think, whatever the rules, there is a problem with perspective, and in some cases rules, and in some cases bureaucracy. My question is in two parts. Briefly, if this Bill were to go through as it stands, what effect do you think this would have on our attracting the best students to the UK? Secondly, a very broad question: if you were able to write the script, what message would you wish to get across to such students? It does not matter in which order you take it. Were the Bill to go through as it stands—which is not certain at all—what effect would it have?

**Philip Lockett:** In terms of the NHS charge, the perception will be that we are charging a lot more for the visa application, because I understand it is going to be asked to be paid at the same time as you make the visa application. That additional charge, again, makes it a lot more unwelcoming, because it is more of a cost to apply. After you have the visa and you

know you are coming, it is not a huge cost, though it is another additional cost in studying here, but asking before you apply for the visa is problematic.

In terms of landlords, the other issue you raised, the problem with landlords is that we are adding bureaucracy. It is a bit like the post-study work visa. We are making it much more difficult for them to rent to international students. I have had two thoughts, and I do not know whether either of these will turn out to the case. Either universities will be forced to put international students into halls of residence—because they will already have checked that they are there legitimately—because landlords will not want to take them, or universities will have to get more involved in the process of private accommodation because landlords will not have the expertise. Judging whether somebody is here legally is quite difficult. It is not easy; you have to understand the visa system, what it means, and what you can and cannot do. That is not straightforward. There are plenty of examples where that has been a problem. The two proposals at the moment are likely to decrease the number of international students, because they will simply add to the perception that we are not welcoming.

**Baroness Manningham-Buller:** As to the second part of my question, it follows from that that you would wish to transmit by different ways that we are welcoming.

**Philip Lockett:** I think so. Can we achieve the same objectives? Universities are set up to monitor whether students are here legally. We can make that judgment. We invest a lot of money in doing that. Landlords will not because it is too small. I would be thinking about looking at ways we can make the university deal with that. With the NHS, if we feel we want to charge for that—and I think that is open for discussion—can we do it when students are definitely coming here, not when they are applying?

**Ian Bradley:** My comments are similar. With the health service charge, it is just about being unwelcoming. On the comment about price sensitivity, it is when one compares to other countries. Our visas are already higher than any other country to apply to, and adding the NHS fee surcharge on to it will just make that greater. I would also hope that, if that does go forward, there is not an additional cost by us implementing it. I do not know how the NHS will then assess that when a student turns up. Will they have to have a new system that they go through that probably costs some money to implement? I think it is about the perception in terms of the health surcharge.

For landlords, similarly, I wonder how many of us in this room would be able to check someone's immigration status, and there are some people in this room who have some experience of it. We have seen embarrassing incidents where government Ministers have not been able to know the employment status of their own staff, yet we are effectively going to ask the general public, as landlords, to assess people's immigration status. That just does not seem to be sensible. What will happen? Students will probably be unaware of it until they arrive. When they arrive and try to find somewhere to live, we can provide halls of residence, but many of our students—particularly those with families, which is a lot of students at postgraduate level, particularly sponsored students at postgraduate research level, who arguably are going to be some of the key influencers of the future—will be discriminated against. That is not a message that we want. A landlord will say, "I only want a UK student or an EU student, because I do not have to check anything. I do not want international students". That is not a good message that we could be bringing forward.

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What can we do? Well, we can probably massage a little bit, in terms of, “Yes, cost—well, you are paying for high quality, et cetera”. I am not sure we can do anything about the landlord situation. I very strongly urge anyone around this table who has any influence to vote, at least, against that part of the legislation.

**Daniel Stevens:** I agree completely with Ian and Philip. We did a survey of over 3,100 international students’ perceptions of the Immigration Bill. That is where I got the figures of 51% not thinking the UK Government is welcoming, and 19.4% not recommending the UK to a friend. We asked them specifically about these proposals. 75% of non-EU students said that the introduction of a £150 NHS levy would make it either not possible, or more difficult, to study in the UK. This was closer to 83% for PhD students, and 82% for those with dependants. If you are a PGR researcher with a wife and two kids, you would have to pay £3,000 before even stepping into the country, just on NHS charges. It is going to be more now that the cost of a visa for a dependant is going to increase by 50%. The fees for those who are researchers are going to be astronomical. Sheffield did a survey of 1,251 students. When asked about charging for healthcare, 77% said that £200 per year would be either unaffordable or very unaffordable. So we have two surveys saying the exact same thing. On landlord checks, 40% of international students said that the introduction of landlord checks would negatively impact their decision to study in the UK. It was closer to 51% for PhD students, and again, higher for those with dependants. We have hundreds of open comments from students who had difficulties finding landlords.

**Q31 Baroness Manningham-Buller:** Sorry, I am not wishing to stop you, but there are other people coming. Again, on behalf of the Lord Chairman, could you let us have those figures in writing? Indeed, if either of the other witnesses have statistics they want to give us, that would be welcome. Can we just sum up this session? For what your university is offering, and your dependency, where it arises, on overseas students, how do you view the future? Are you gloomy or hopeful, and do you think we can manage through this? What are your final observations on where we stand?

**Daniel Stevens:** In terms of your question on what script I would give, I would say that I had the best possible experience in the UK. However, from a personal experience, I had the ability to get post-study work retrospectively removed for me. I came here as an undergraduate, thinking I would have post-study work, and had it removed during my course. I have horror stories of the UKBA. I have lost sleep because of visa applications. I have had to register with the police 12 times. I have had very good friends who have left the country because the employers they were working for would not sponsor them, because they did not have the licence—people that were the only key person for a position. What script would I give? I would say, for international students, to simply be honest and talk about their experiences in the UK. That is the message many would unfortunately give. I do not think I have been unlucky in my situation.

In terms of the future, we have a Government that refuses to budge on anything when it comes to international students. As I said, we still have police registration. It baffles me why it is here today. We have no clarification on international students being able to volunteer and help local communities. We do not even have clarification on that. The future is very bleak, because international students are still trapped in this net migration target. We have the general election coming up, with immigration being the number one issue, and we have international students being the only lever to control immigration. When you are seeing

change after change after change, to the detriment of the UK, there is no shining light. BIS has tried; there is the International Education Council; there is this new international education strategy. However, unfortunately, I personally think that the Home Office is really shooting the education sector in the foot. It is not just prospective students. It is the current students who are suffering. If you want, I can give hundreds of case studies. I can give hundreds of comments from international students on this.

**Philip Lockett:** We need to think. At the moment, treating international students as the immigrants we can manage is the wrong model. Britain is a country that needs exports. We only produce half our own food. We are going to have to work with the rest of the world, and you do that best by developing personal relationships. A very good way of doing that is educating students here. At the moment, it does look gloomy. My request would be: can we think of international students as a valued asset for the future development of the country, and not as immigrants we need to limit?

**Ian Bradley:** I am hopeful for the future. There are good things out there. Daniel mentioned the Brazilian Science Without Borders scheme, for example. There is a massive, growing economy in Brazil, and arguably the destination of choice for Brazilian students is the UK, which is great, and hopefully will continue for a number of years. Some of the rules that link to immigration have done good things. In the past, there have been bogus colleges, and bogus students in a sense. Many of those have stopped as a result. I think there are things that we can do, maybe in partnership with Government, to get even more international students—and good-quality international students. To echo the comments from my colleagues on the removal of students from net migration figures, the information in the press over the last couple of days has been about net migration, but when one drills down, it is Romanian and Bulgarian individuals coming to the UK. Students, whom we actually want to attract, bring in £10 billion to the economy. Obviously, we want that to grow, so that the UK can continue to recover well. So I would welcome net migration figure changes and some form of post-study work to provide opportunity, if the jobs are there, and help to make us seem more welcoming. The other thing I would just throw in as well is that it would be really helpful if, as and when legislation is introduced, it is not introduced in the middle of a student cycle. We have had various instances in the past where we have had to retrofit systems part way through an academic year, which is rather challenging.

**The Chairman:** I thank all our witnesses very much indeed. We have reached the end of our time for this session, but you have made very helpful responses to our questions, and we would like to thank you for your time. Daniel in particular has offered to follow up some of his comments with facts and figures, so could you send those in to the Clerk? For the other two witnesses, if there is any point you would like to elaborate on, do feel free to send it in to us. It will become part of our evidence. You will in due course receive a draft transcript of this session and have an opportunity to make editorial corrections. Thank you very much indeed.

## **National Union of Students (NUS) – Supplementary written evidence**

*Following the evidence session from 4 March 2014*

### **STEM Students in the UK**

1. NUS has found evidence of significant declines by subsector of the education sector, nationality and subject area.
2. Overall, the Office for National Statistics show that there has been a 36% decline in the number of Tier 4 visas issued.

### **By Sector**

3. Subsectors of the education sector have been impacted differently and disproportionately. There has been an 80% decline in the further education sector, a 83% decline in the English language teaching sector and a 22% decline in independent schools.
4. This will ultimately have a lagged negative impact on the University sector. UUK has estimated that 40% of international students come to Universities through pathway providers. It found that in 2007/08, 46% of first-year Undergraduate students were recorded to have progressed from another UK institution. In addition, the Independent Schools Council.
5. The IPPR highlighted that that a decrease in the number of international students attending pathway courses in the UK will have a knock-on effect on British universities further down the line. It is important to remember, that for certain types of qualifications, due to differences between countries, these programmes allow international students a route to British Universities that they otherwise would not have.
6. Universities themselves have experienced two years of declines in first year enrolments. This has translated into a 1% drop in overall numbers. However, when China and Hong Kong are removed, the actual drop in overall numbers is closer to 4.5%. This follows a four year downward trajectory in growth since the Government imposed new immigration rules in 2010.
7. In comparison, other countries have experienced high levels of growth. Australia has since a yearly increase of international student numbers by 8.1%, the United States 7.2% and Canada 9.9%.

### **By Subject and Nationality**

8. This appears to have had a disproportionate impact on STEM subjects. HESA data shows that whilst non-STEM subjects saw a year on year 3% increase followed by 0%



increase, non-STEM subjects saw a 8% decrease followed by a 2% decrease. In particularly, Computer Science and subjects allied to medicine saw two year decreases of 33% and 25% respectively.

9. This decline has had a disproportionate impact on PGT students. International students make up 58.8% of PGT students and this will inevitably hurt STEM programmes.
10. There is also a disproportionate impact on certain nationalities. There has been a 2-year drop of 55% for Indian students on STEM programmes, a 33% decline for students from Saudi Arabia, a 3% drop for Nigerian students, recent drops for students from Canada and Thailand and a 0% change for students from the United States. This is in a climate where the same nationalities are increasing numbers in other countries.
11. NUS research on the immigration bill shows a possible direct correlation between countries that think the UK is unwelcoming, high concentrations on STEM subjects and declines in numbers coming to the UK. We believe that the immigration rules have put off students from certain countries, especially due to the impact of word of mouth and recommendations from friends and families.

	<b>Concentration in STEM</b>	<b>2-Year Decline</b>	<b>Percentage Which Would Not Recommend the UK</b>
<b>India</b>	41%	55%	35%
<b>Pakistan</b>	34%	38%	39%
<b>Nigeria</b>	48%	3%	37%

### Importance of STEM

12. The IPPR found that international students stimulate demand for courses. In a statement to the Home Affairs Select Committee in 2011, Professor Dave Wark of Imperial College London warned that if the number of international students were limited "it would lead to a reduction in the quality of the courses offered in the UK."
13. Almost half (46 per cent) of international students at the University of Sheffield were studying STEM degrees during the 2012/13 academic year (Oxford Economics 2013). Sheffield SU noted in its submission to the committee's call for evidence that "what is clear is that world-class departments such as Automatic Control and Systems Engineering at the University of Sheffield would simply be unable to function without our international students and also international staff many of whom may have been educated within the UK."
14. More than a fifth of students at all levels in subjects deemed "strategic" by the government come from overseas<sup>107</sup> (Universities UK report 2007) Only 29% of

<sup>107</sup>Strategic subjects are defined as those which are vital on the grounds of wealth creation, diplomacy, international relations and cultural grounds. They include science subjects, mathematics, technology, engineering and languages.

postgraduate students in strategic subjects are from the UK, with more than half coming from non-EU countries. (Universities UK report 2007)

### **The Impact of Immigration Policies**

15. NUS believes that there is enough evidence to suggest declines in student numbers have a significantly strong correlation to immigration policies in the UK and the attractiveness of our policies relative to other countries. Whilst other factors such as exchange rate fluctuations do have an impact on recruitment, the steepness of declines, the increases of international students in other competitor countries and the number of countries that have shown declines suggest that other factors are at play. There are few other factors with the strength of evidence as immigration policies.
16. It is worth highlighting that whilst the UK has severely restricted access to post study work through Tier 2, which has numerous problems that NUS will highlight, other countries have moved in the opposite direction. For example:
  - a. United States allows STEM graduates to work for 29 months after their studies and is currently looking at legislation to provide permanent visas.
  - b. Canada allows students access to work experience of up to a maximum of three years and is looking to promise 10,000 permanent residency visas. Canada has also launched a C\$13 million strategy to promote research and training links with Brazil, China, India, Mexico, Turkey and Vietnam.
  - c. Australia and New Zealand have similarly attractive work routes for students after their studies have completed. New Zealand have announced unlimited work rights for PhD and Masters students and have legislated a Code of Practice for the Pastoral Care of International Students. Australia has reintroduced their two-year post-study visa, and made it a streamlined visa.
17. In addition, NUS can point to four studies which have shown a direct decline in the UK's attractiveness in recent years due to immigration policies.
  - d. Hobsons' survey of 70,000 prospective students found that the ease of getting a visa was the top influencing factor for students. 88% indicated that they may switch destination countries if visa regulations were tightened. Of those students that did not choose the UK, they did so because of their perceptions of visa restrictions including post-study work options (24%), ease of obtaining a visa (24%) and ability to work whilst studying."
  - e. UK's reputation has shown an 8% drop in attractiveness since 2010 when the immigration rules were introduced according to the 2012 International Agent Barometer. In comparison other countries have experienced an increase (New Zealand up 4%, Australia up 6%, Canada up 16%).

- f. According to a YouthSight poll “52% of overseas students in the UK say the Government's migration cap makes them feel less welcome in the country.”
- g. NUS survey of over 3000 international students in the UK conducted in January found that 51% of non-EU students surveyed think that the UK Government is either not welcoming or not at all welcoming towards international students.

### **Areas of Concern in the Immigration Rules**

18. As requested, NUS has identified nine areas of concern in the immigration rules which are both dissuading or at worst preventing prospective students and causing current students to feel unwelcome. Much of this concern is also shared by the International Education Council, the Government chaired group overseeing the implementation of the Government’s international education strategy. It investigated and found that the immigration system which international students had to pass was “prone to frequent change and over-complex.”

1. **Uncertainty and Frequency of Changes:** the immigration rules have been changed numerous times in the past four years. The HE Better Regulation Group pointed out the Tier 4 guidance was published by the Home Office on 1 July 2013 where the government indicated that no future major policy changes are envisaged, and there is to be a period of stability. This appears to not have happened. International students have no certainty if the rules will change during the duration of their studies. Indeed, the ability to apply for a post-study work visa was applied to many international students retrospectively. This, among other changes, has meant students are unable to complete their courses.

**Case Study 1:** A group of students studying a RIBA accredited Architecture course was unable to complete the course as part of the requirement was achieving a number of hours work experience which were to occur at the end of teaching. The course was designed while the post-study work visa was in place, and students were provided with work experience after successfully applying for the PSW. When the PSW scheme was removed and applied to students who were part-way through studying, these students could no longer complete the required hours for the RIBA accredited course. They are still appealing the decision.

**Case study 2:** An increase in several requirements, including English Language, which was beyond what institutions thought was necessary, was introduced in the middle of the application processes. To comply with the changes, sponsors had to review thousands of applications which had already been processed. Students found themselves accepted on their course of study one week, and rejected the next.

2. **Accommodating Difference:** smaller institutions are punished disproportionately because of the current rules regime. This means international students studying

niche subjects or at small and specialist, institutions often do not receive the same certainty or support as international students studying at larger institutions. Due to the way refusal rates currently work, international students who do study at small institutions are putting themselves more at risk of studying at a sponsor who might have their sponsorship revoked. For an institution with only 10 international student applications a year, the rejection of 2 could mean that the other 8 are without a sponsor as their sponsor has then risen above the 20% threshold.

**Case study:** A group of students at a public college who recently had their licence revoked for reasons that are confidential to UKVI, have found it very difficult to find a new course to avoid being removed from the UK. Many were studying specialist subjects in the creative or technology industries and have struggled to find new courses which match what they were studying. As a result, some have lost credit for the work they had done to date. One student has had to move to a different town to find a suitable course, and another to a different country in the UK.

3. **Credibility Interviews:** international students must now go through the extra process of sitting through a credibility interview. However, the training and guidance given to staff members conducting these interviews has raised concern within the sector, especially given the varied nature of the courses students will study and the specific questions they are asking. In addition, international students are not given any feedback if they fail an interview and cannot appeal the decision. This has provided another barrier in the application process which can potentially dissuade international students with a questionable level of benefit. UKCISA has produced an [excellent document](#) highlighting concerns from the sector. It found that credibility interviews:
- a. Provide another set of “unpredictable and subjective standards.”
  - b. That “these standards relate to a number of areas and especially around intentions which are notoriously difficult to assess with any certainty.”
  - c. That this “merely duplicates a process already undertaken by institutions which are supposed to be Highly Trusted”
  - d. That many “young people and especially from some cultures, may find this sort of interview intimidating.”
  - e. That it would be “difficult if not impossible in most instances to overturn a decision made through the administrative review process”
  - f. That the process “of applying for a visa will now become even more extended.”

**Case Study 1:** A prospective student with a degree in medicine applied to a UK University to do an MBA. She was refused after a credibility interview as the interviewer felt it was not appropriate for her to change careers.

**Case Study 2:** A student applying for a level 3 foundation programme designed to allow students to progress onto higher education was refused after a credibility

interview after the interviewer stated “You state that on completion of this course you will seek admission to university but there is no evidence to show how completion of this course will enable you to do this.”

4. **Police Registration:** International students from a [group of countries](#) must register with the police upon seven days of arriving in the country. The countries chosen have no clear reason why they are on the list, and the list has only increased and not decreased. It includes China and Brazil, but not India or Pakistan, which would put it in line with other policies such as credibility interviews.

International students, with nationals in the UK for other reasons must notify the police of any change in circumstance- including a change of address. It is difficult to know why this practice must continue considering much of this information is collected by institutions and to our knowledge, the police do not use it. In fact, discussions with police forces suggest that they themselves do not want this process or consider it an efficient use of resources. The sector have been told there is a ministerial consideration to abolish police registration but have been waiting for over a year for a ministerial response as to why this practice must continue.

**Case Study:** In 2012 NUS filmed several nights of international students queuing [overnight in the rain](#), as featured on BBC and in several UK newspapers. Due to the regulation that nationals subject to police registration had to register with their local force within 7 days, 8000 international students in London joined others in the one queue outside the OVRO in Borough in September and October 2012. NUS video evidence counted 393 students in the queue. The OVRO capacity for a day of registration is 400 cases. The queue was closed by staff between 6:30 and 7:00am for several days and anyone arriving after that was turned away. The office does not open until 9:30 in normal working hours. One student reported to us she waited for 10 hours in the queue to register, for an appointment which took her only 5 minutes.

5. **Attendance Monitoring:** due to Home Office requirements, international students must now be “monitored” by their institution. However, the requirements are so opaque and institutions are so scared of losing their ability to sponsor international students that they have implemented [draconian conditions](#) in order to minimise their risk. At one institution “all undergraduate students are required to Check-In on 3 days per week.” Checking in is done by “present[ing] your Student ID Card to the member of staff at any monitoring station.” Two others requires all its international students to “check-in” once a week. One institution introduced a “three-strikes” system where if a student misses “3 compulsory elements of a module” or “whose overall attendance falls below 75” will be de-registered from the module.

**Case Study:** NUS recently visited one institution whose response to the Home Office requirement for attendance monitoring was to introduce biometric

scanners to be used by all international students at every lecture. Lecturers would bring the biometric scanning machine to the start of each lecture and international students would pass the machine around. If a student were late to class, they would not be able to use the scanner and would have to fill out a form.

**Case Study 2:** A STEM PhD student at one institution works in a university laboratory 8 miles from the main campus. The student must use their university swipe card each day to gain entrance to the lab, attends regular development sessions and has passed all the academic monitoring requirements to date. The student must still make the 30 minute trip to the main campus and back once a week to have their passport photocopied by the school office to comply with attendance monitoring, losing over an hour of their own laboratory time. The student has expressed concern over this but has been told it is a Home Office requirement.

6. **Arbitrary Restrictions:** the Home Office have introduced numerous requirements which could we believe should have more discretion applied to them. If institutions are now highly trusted, this judgment could indeed be made by them and not be an imposed Home Office requirement. Examples of this include minimum English language requirements, academic progression or the requirement of maintenance fees.

**Case Study 1:** NUS received an email from a worried parent who's daughter had come to the UK to do a course who then discovered that she was allergic to the materials being used on the course. Due to the Home Office requirement of academic progression and the maximum length allowed in the UK, she was not allowed to switch her course to another institution.

**Case Study 2:** 100 of the brightest students from Brazil as part of the *Science Without Borders* programme were [turned away](#) for not having the minimum required level of English reinforces that there needs to be more discretion within the immigration system.

**Case Study 3:** Discretion with supporting evidence has also been raised as a concern. "When I returned to England, I submitted my application again. However, my bank statements were now more than a month old by two days. I had to fly back to Belfast at an added expense to get more bank statements that had an official stamp. Everything was extremely stressful and contingent on paperwork that had to be dated exactly."

**Case Study 4:** "However, when it came to applying for another student visa in September 2011 to do my MA for a year in Bath, I was rejected twice, and very close to being rejected for the third time. This ordeal cost me 900 pounds [and] I ended up attending classes a month late. I had to use all sorts of connections to grant me the visa. They insisted it was due to insufficient funds, but I had shown them personal financial details that were more than enough!"

**Case Study 5:** “The changes to the visa limitations are extremely restrictive. I especially dislike the changes to English language requirements - my university, UEA, has an extremely good program for pre-degree study, to raise standards of academic English before starting on their degree.”

7. **Academic Technology Approval Scheme (ATAS):** International students studying certain STEM courses must get [ATAS](#) clearance. However, the delays in receiving this clearance have risen from around a few weeks in 2010 to now more than 9 months. This means that PhD students are losing over a term or more to receive their ATAS certificate so that they can apply for their visas. This would mean that some students may simply go to another country to undertake research because of the unacceptable length of delays.
8. **Issues with Working Rights:** the removal of post-study work overwhelmingly raised as an issue with international students we’ve interviewed. International students are looking for temporary work experience in the UK to apply the knowledge from their academic course and improve their job prospects back home. We have answered this question in full in our previous submission [Appendix 1], but have attached our answer again as we would like to stress the impact that this has had on international students. It is also worth noting that both the Government and institutions have misled and overemphasized the ease and ability with which international students can find work in the UK. NUS believes that STEM graduates are finding it difficult to employment in the UK for a variety of reasons. The key reasons identified by the qualitative evidence in the surveys we have conducted are threefold:
  1. The short time period students are given to identify a job and a sponsor. International students on PGT programs for example have an incredibly limited time period in order to secure the sponsorship needed to stay on in the UK. Larger companies which have sponsorship can close their recruitment cycles as early as October, barely a month after many may have arrived in the country.
  2. The fact that most of the employers they encounter do not have Tier 2 licenses and therefore cannot sponsor them (including large companies). NUS has found a worryingly number of large employers, some of them including IBM and Deloitte at one stage, did not provide sponsorship for international students. This is because many employers did not want to risk recruiting international students because of the sheer uncertainty in hiring foreign workers because of the ever-changing immigration rules. Many smaller employers do not want to take up the risk included in having to comply with immigration rules. In contrast, the post-study work visa transferred the risk to the student and not the employer. This has meant that the availability of jobs that international students can apply to is incredibly small.
  3. The restrictions which link Tier 2 limits to specific salary limits such as £20,000. Students in rural regions and some urban regions outside of London

found the salary limitations particularly difficult. Many wanted to stay and work in the area they studied and found finding a job over the salary limit, with a company which held a tier 4 license “impossible.”

**Case Study 1:** An Indian STEM graduate wrote to us to say that of his cohort of 300-325 Indian Postgraduate Taught students who came the year post-study work was abolished in the UK, only 10-12 managed to stay on and find work in the UK. He explained that the success rate for international students was “absolutely appalling” and that the reason from his experience that international students could not find work was that companies did not have the necessary sponsorship.

**Case Study 2:** One student from our survey left this comment: “Each international student is injecting more than 60,000 pounds in this economy plus taking part and raising money for local charities and I don't think that we deserve being treated like that! We are definitely not contributing to graduate unemployment for home citizens, for people have to be employed on the basis of their competencies and skills and not on their nationality. Home citizens in fact will always stand more chance in getting the better paid jobs anyway. I cannot find a job in my country in a microbiology lab because they just do not have that sector there and I honestly do not think I should be discriminated because of my nationality. I am not responsible for where I was born but I know what I'm worth and what I can contribute to the field of science and I think I should be given an opportunity to contribute to the field of microbiology.”

**Case Study 3:** Another student from our survey left this comment: “I made the decision to study in the UK based on the fact existence of the post study work visa, and because I am graduating after the date when it will change I am no longer eligible, which had I known that I would not be able to stay on I might have made different decisions.”

**Case Study 4:** “All these new regulations being imposed on international students make me feel uncomfortable and not welcome. I do not think this is right, as I am a hard working student who does not necessarily want to stay in the UK after studies, but would like to get some work experience after university to secure employment opportunities back at home and across the world generally. I feel like the salary boundary would be a big problem for me.”

**Case Study 5:** Another student from our survey left this comment: “Canadian optometry students come to the UK seeking a qualification rather than a BSc., as optometry is a post-graduate level degree in Canada. Once the 3-year UK undergraduate program is complete, optometry students must complete a pre-registration period (which is organised by themselves) to become a qualified optometrist. Pre-registration optometry students are on a salary of approx. £11,000 and therefore do not meet the required £20,000. It is not fair to have international students paying international fees, who applied approx 2 years ago under the impression that they would be able to complete their degree and pre-



registration period under student visas, subject to these new regulations. I would not have come to the UK in the first place had I known these regulations would change.”

9. **Revocation Procedures:** the latest area for concern is the way in which the revocation of an institution’s highly trusted sponsor status is handled. The current system disproportionately affects legitimate international students. International students who are caught up in a revocation are given curtailment notices and forced to find another institution. However, NUS has found that often international students are left out of pocket for course fees, living and relocation costs and have to go through the visa application process, having to again pay visa fees and show the required maintenance. The result is that international students are left thousands of pounds out of pocket and find the time spend in the UK wasted. NUS is in favour of tackling abuse in the system, but this has been done completely at the expense of legitimate international students.

### **Support Provided to International Students by Institutions**

10. NUS has great sympathy for sponsor institutions in trying to ensure students receive sound advice. It is a very difficult thing to do when the policies and guidance is always changing.
11. The National Audit Office’s 2012 report showed the UKBA to be not compliant in a number of areas around regulation, in particular with the principles of better regulation. It showed the agency was not transparent to sponsors about changing regulations and compliance. 1/3 of the respondents to the NAO evidence said the UKBA did not provide the support they needed to implement the new rules. UKBA has also not had a timely complaints process for sponsors or a predictable compliance response due to the large number of policy changes.
12. Worse still the HE Better Regulation Group pointed out the Tier 4 guidance was published by the Home Office on 1 July 2013 where the government indicated that no future major policy changes are envisaged, and there is to be a period of stability. This has not happened as the September 5<sup>th</sup> statement on immigration made changes, including the introduction of more credibility interviews, and the immigration bill has introduced more changes targeted at students.

### **The Immigration Bill**

1. NUS cannot understate the devastating impact the immigration bill is likely to have. The UK has already become one of the most restrictive and expensive visa systems in the world. Both the uploading of NHS costs and the message that such a change would send would have a dramatic impact on the UK’s attractiveness to international students at a time when international students are already beginning to reconsider the UK due to previous changes.

2. Three surveys conducted by NUS, Sheffield Students' Union and Imperial College Union all reinforce this. NUS conducted a survey of international student's perceptions towards the immigration bill and the UK in January. We have attached the full report of the NUS Survey to this additional evidence and highlighted some survey points below.

### **On the UK's Immigration Policy**

3. 50.7% of non-EU students surveyed think that the UK Government is either not welcoming or not at all welcoming towards international students. This is higher for students from Turkey (61.3%), Japan (64.5%), Nigeria (62.8%), India (62%), Pakistan (56.1%), for PhD students (65.8%) and for those with dependents (57.5%).
4. 19.4% of non-EU students would not recommend the UK as a place to study for a friend or relative. This is higher for students from India (34.5%), Nigeria (36.8%), Pakistan (38.5%), PhD students (23.5%) and those with dependents (32.1%).

### **NHS Levy**

5. 74.4% of non-EU students surveyed said that the introduction of a £150 NHS levy would make it either not possible or more difficult to study in the UK. This is higher for PhD students (82.6%) and those with dependents (82.2%). 15% of those with dependents stated that it would not be possible to the UK.
6. 73.2% of non-EU students stated that access to free healthcare was either important or very important in their decision to study in the UK. This was higher for students from China (85.7%), Malaysia (85%) and for those with dependents (82.1%)
7. This is reinforced by a survey done by Sheffield SU of 1251 students studying at Sheffield. When asked about charging for healthcare, 77% of international students said that £200 per year for NHS costs would be either "unaffordable" or "very unaffordable".

### **Landlord Checks**

8. 40.4% of international students stated that the introduction of landlord status checks would negatively impact their decision to study in the UK. This was higher for PhD students (51.2%) and those with dependents (50%).
9. 28% of international students stated that their international background has had either a negative or very negative impact on their ability to find accommodation. This was higher for PhD students (39.2%) and those with dependents (48.5%)

*11 March 2014*

## **[Appendix 1] - NUS Evidence of International Students and Immigration Policies Related to Employment**

NUS believes that although the UK has some of the best academic institutions in the world, the incentives the UK offered has deteriorated significantly in recent years. In 2011, the Post-Study Work route was closed. The UK has replaced this with a Tier 2 route which has experienced numerous difficulties and has been found to be both inaccessible and less competitive than the offer provided by competitor countries.<sup>108</sup>

In contrast, the United States allows STEM graduates to work for [29 months](#) after their studies and is currently looking at legislation to provide [permanent visas](#). Canada allows students access to work experience of up to a maximum of three years and is looking to promise 10,000 [permanent residency visas](#). Australia and New Zealand have similarly attractive post-study work routes.

NUS (2011) surveyed 7,878 international students, of which 2,598 studied STEM subjects and 781 medicine and related subjects, on the closure of the post study work visa. The majority of these students were either Postgraduate Taught or Postgraduate Research student. The results specifically for STEM students were:

- STEM students were more likely to find the availability of the post-study work visa as important in their decision to study in the UK. 77% stated it was very important and 16% stated it was fairly important.
- This was significantly higher for PGT students. 80% stated it was very important and 15% stated it was fairly important.
- 84% of STEM students stated they were planning on using the post-study work option in the UK.
- STEM students were more likely to say that they would not have chosen to study in the UK if the post-study work option was removed. 75% stated they would not. This was again higher for PGT students.

NUS (2012) surveyed 1010 students of which 198 studied STEM subjects at Higher Education students. Of these students, STEM students responded with the following to the NUS survey:

- 62.3% came to the UK for opportunities to work after their studies. 71.3% to improve their job prospects back home. 75.4% because of the quality of UK education.
- 95.5% felt gaining work experience during their studies was important to them. However only 59.2% felt that gaining work experience relevant to their chosen career was easy to achieve.

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<sup>108</sup> A study by the British Council (2012) into the impact of similar policy changes by the US and Australian governments during the previous decade indicated that comparable initiatives resulted in a decline in international student enrolments. In our view, recent visa reforms place the UK in an equally vulnerable position.

- Only 20.7% of students felt that they were very confident that they would be able to find employment in the UK after completion of their studies. 50.7% were a little confident and 28.6% were not at all confident.
- However, 33.9% expected their starting salary to be less than £20,000 which is the current Tier 2 threshold.
- 88.8% felt that STEM graduates should be able to seek work in the UK after a period of time without having to find immediate employment.
- 74.1% felt that they should be able to find employment without having any salary threshold imposed.
- 45.3% would not recommend the UK to a friend because of the work experience and employment opportunities available.

Loughborough University (2013) surveyed 585 international students with a good sample of STEM students. This survey was after the removal of the post study work visa. It found that overall:

- Almost 50% felt post study work opportunities were either the most important or important to their decision to study in the UK.
- 55% did not feel the visa application represented good value for money.
- 40% said the difficulty they experienced getting a visa to remain in the UK made either an extremely important or an important impact on their reason for leaving.
- While 70% would recommend the UK to study, only 33% would recommend it for skilled work and only 11% would recommend it for a business start-up.

The report recommended modifying the rhetoric on immigration as survey respondents were well aware of the opportunities available in countries such as the US, Canada and Australia.

Many students NUS surveyed in 2012 left comments and case studies that we can share with the committee. Below are a few we feel would provide a greater insight into the impact of immigration policy on international STEM students:

- “Students pursue international studies in the hope of getting a quality education, improving job prospects, and in the process make some money. It's a two way process as the international students contribute high economic benefits to UK in the form of taxes and the huge amounts of tuition fees and moreover they also form a reasonable chunk of labour force in UK. With many other countries, such as Germany, offering great work options I would definitely not recommend UK to any my friends as a study destination” 23, *South Asia, Biological Sciences*

- “I'm just disappointed with the removal of post study visa. I'm finishing my studies this May 2012 and they closed it on April 2012. I had I hopes and dreams and now, it is just things that won't happen. I stayed here legally and obeyed all the rules. When I applied for placement, I noticed that even though, I was more qualified than the rest of the candidates, they still chose UK citizens. There was even one company that sent me an email that, they will choose UK citizens first before considering my application, not taking into account my qualifications. I'm afraid of what will happen to me after graduation because I don't know how to pay back my sister for the money she lent me for my tuition and going back to my home country and working there will take the rest of my life paying for what I owe.” 28, *South East Asia, Mathematics*
- “I am of the view that international students should be given the opportunity to gain some experience in the UK after their studies especially those in very technical fields unlikely to obtain that experience in their home countries as graduates. Employers all over the world want to hire people with experience, therefore to find employment in the country where you obtained your certificate to acquire the requisite training and experience will better enhance your prospects back home. Therefore to curtail this opportunity is a great disincentive not only to prospective students but also to the UK educational institutions that are competing with those in other countries. The idea of giving permit on the basis of salary is quite difficult to comprehend since not all graduates will be fortunate to secure high earning employment. They may earn well below the stated level but nonetheless, gain the experience they desperately need to return to their countries and be competitive in the job market.” 28, *Africa, Engineering*

## Newcastle University – Written evidence

### Respondent's details

Professor Thomas Joyce, Professor of Orthopaedic Engineering, School of Mechanical and Systems Engineering, Newcastle University

#### 1 Respondent

Professor Tom Joyce is an academic engineer and one of the few to receive the accolade of National Teaching Fellow (2011). His interests in the student learning experience include an emphasis on international students (Joyce and Hopkins, *'Part of the Community?' First year international students and their Engineering Teams*, Engineering Education, 2014, in press <http://journals.heacademy.ac.uk/doi/abs/10.11120/ened.2014.00019>). In the School of Mechanical and Systems Engineering at Newcastle University, Professor Joyce is Stage 1 Manager so he has responsibility for the first year student experience. He has introduced 'Engineering Teams' – a means of peer support – which has resulted in progression rates of Mechanical Engineering students from first to second year increasing significantly (Joyce and Hopkins, *Working together: the positive effects of introducing formal teams in a first year Engineering degree*, Engineering Education, 2011, 6, 1, 21-29). In addition the experience of female students has been evaluated (Joyce and Hopkins, *Minority report: female first year students' experience of Engineering Teams*, Engineering Education, 2012, 7, 1, 20-29). He is the Degree Program Director for Newcastle University's MSc in Biomedical Engineering which, like many MSc degrees, has a majority of international students but, unusually and positively, is almost balanced in terms of the gender split.

#### 2 Background to response to Science and Technology Committee

As part of the on-going assessment of the international student learning experience, an anonymous on-line questionnaire was offered to all of the international students in the School of Mechanical and Systems Engineering at Newcastle University in January 2014. Invitees were undergraduates, postgraduate taught and postgraduate research students. The number of respondents was 64 out of 207 invited (31% response rate) from twenty-one countries. By quantity, the largest number of respondents was from China (28.1%). Next were India (12.5%), Nigeria (7.8%), Singapore (7.8%), Malaysia (6.3%), Thailand (4.7%) and Brazil (4.7%). Indonesia, Saudi Arabia, Kuwait, Turkey and Jordan each had two respondents (3.1% each). Japan, Sri Lanka, Oman, Russia, Ukraine, Syria, Kurdistan, Costa Rica and Tanzania each had a single respondent (1.6% each). Forty-four respondents (68.8%) were postgraduates, 20 (31.2%) were undergraduates. A majority were male (56 – 87.5%) and 8 (12.5%) were female. Most respondents arrived in 2013 (51.6%) with numbers declining for preceding years, i.e. 9 (14.1%) in 2012 and 7 (10.9%) in 2011. As such, the majority would have been affected by the reforms to immigration policy introduced since 2010. Clearly these were students who had made it to the UK to study, so the following views should be understood within that context.

### **3 Responses to the Consultation Questions**

#### **3.1 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?**

3.2 The on-line questionnaire asked: **“Did you find the UK’s immigration policy/visa rules restrictive when you applied to study in the UK?”** Respondents were split 50/50 between ‘yes’ and ‘no’. Some students (12 - 18.8 %) expanded on their answer. Interestingly, of these 12, 6 had answered ‘Yes’ and 6 had answered ‘No’ to the previous question. While 2 people reported that they had obtained a visa relatively quickly (*“Personally, I had no issue of getting visa”,* while a second said *“I think it's much faster than before to apply a visa from the UK IMMIGRATION POLICY. It only took me ten days to obtain my visa successfully”*), 4 said that it took time. One of these students remarked *“It took 25 days to get my visa to UK. If it didn't take a long time like that, I would attend my first lecture in Newcastle University”*. The second student said *“My first attempt for receiving Tier 4 visa was unsuccessful. Therefore i have missed the first month of my education during foundation year”*. A third said *“many visa forms to be filled (paper forms, online forms) - very long visa processing time”*. A fourth wrote at length *“The VISA application procedures are long cumbersome and not friendly. Visa Application office is Tanzania, VISA issuing office is Nairobi Kenya. One has to post all his document including original certificate and certified photocopies. Visa applications procedures used to change without notice and may ended up being denied VISA for one reason or another. I had to apply 4 times to get a VISA for an error not mine. All these application meant new expenses and VISA fees. Customer service was very bad at that time”*. Two other students spoke of themselves getting visas when their friends did not, and that there seemed to be little clear reason why one applicant was successful and another was not. For example one student said *“Some people might pass (my case), some people might not (my friend's case), without a clear reason why”*. Another student said *“Though I did make it to get the visa, it really kinda scared me that several colleagues failed to. There were others who failed to expand their visa after completing the preparatory courses, and as far as I know, they were not offered proper reasons for the rejection”*. Interestingly a couple of respondents noted that it was appropriate for a country to have visa rules. For example *“The rules and policies are for the security of the country, no one can say anything about that”*. Another commented *“I understand the need for any country to be strict with the number or type of people they intake especially with the huge number of immigrants”*.

#### **3.3 Which UK immigration policies are affecting international STEM students and what issues are they causing?**

3.4 The question asked to the international students in the on-line questionnaire was: **Which, if any, UK immigration policies are affecting you as an international student and what issues are they causing?** There were multiple answers to this open-ended question which all 64 students had to respond to. Of the responses 31 (48.4%) said there were no issues. Where concerns were raised these seemed mainly to be around the inability to spend a ‘long’ time in the UK after the course ended and the opportunity to gain employment in the UK. Thirteen respondents (20.3%) raised this concern and one statement was *“The cancellation of post study VISA is very bad to most of us and our sponsors. This is*

*because if we are able to work we will gain industrial experience which will be good for not only UK economy but our country as well. When we return back to our country we will be going back also with industrial experience on expiration of the cancelled post study VISA".* Financial issues, namely of proving in advance that funding was available for several months, were mentioned by 4 respondents (6.3%). Six respondents (9.4%) talked of issues over the complexity of obtaining a visa in the first place. One respondent offered the following comment: *"While holding the visa, we need to register with police station, which is never the case for UK citizen. And any change regarding marital status, address and a few other aspects need to report to police station, which is ridiculous and upset me. It is not easy for all international students coming out studying abroad (e.g. Expensive Tuition Fee, Communication Problem due to language as well as different cultural background). The role UK IMMIGRATION policy plays is to make it more difficult to the international students".*

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

3.6 The three-part question asked to the international students in the on-line questionnaire was: **(a) Are you considering trying to find a job in the UK after completing your studies? (b) Do you expect that finding a job in the UK is likely to be difficult?/easy? (c) Please explain your response**

3.7 To part (a) 45 students (70.3%) said 'yes' and 19 (29.7%) said 'no', indicating a strong desire to gain paid employment in the UK. To part (b) 10.3% said it would be 'easy', 89.7% said it would be 'difficult'. To part (c) there was a definite feel that international students would have more difficulty in finding employment compared to UK students. This was indicated by several quotes such as *'I think UK students have the priority to get the job' and 'I would assume that the locals would be given priority to job vacancies. And we would have a more difficult time in getting a Job'*. Others took up this theme but were more stoical saying *'Guess jobs in the UK are for the Brits [which I see as not an issue]' and 'UK is not an immigration country after all. Non-EU background is really a drawback when I seek a job. I'm not saying it's not fair, it just happens'*. Two overlapping quotes were interesting. One student said *'the issues I have read from the newspaper about the "immigrants stealing local people job" has given me a certain pre thoughts whether its difficult or not in finding a job in UK'*. Another student stated that *'the VISA policy that raise the minimum salary that non UK and European citizen will need to be paid before they can be issue VISA. Also there is a requirement that a company can only employ non-European when UK/ European are not available'*. Therefore the perception was that the VISA rules were making international graduates more expensive to employ than UK/EU graduates. One specific concern was voiced by this international student *'I just heard from my friends who have finished their master degree in UK that it isn't that easy to get job in UK, so they back again to their hometown. But I am not so confident finding job in UK because I wear veil'*. Yet there also seemed to be some universal concerns. One student stated *'It really depends on which university you graduate from and the grade obtained'*, and another offered the view that *'It's always hard to find a job, regardless of the country. In addition, I think that UK job opportunities are difficult to get because of the strong competition, due to the large numbers of UK and international students. As I have noticed, UK is a big attraction for students worldwide'*.



### **3.8 Is there a perception that these new policies could be sending out unwelcoming messages abroad?**

3.9 The question asked to the international students in the on-line questionnaire was: **In your country, is there a perception that the UK's immigration policy/visa rules send out an unwelcome message?** Almost a third (21) 32.8% of the responses were yes, the remaining 43 (67.2%) said No. Respondents were offered the chance to expand on their answers. Three of the 'no' respondents took this opportunity stating: *"Not really, every country monitors students to segregate the genuine ones from the frauds. It really is not a hassle, also the UKBA make it easy on many levels and transition is usually very smooth"*; *"To my concern, the rules might be tough, yet essential"*; and *"No at all now from Jan. 2014, Exception where the applicant holds an Electronic Visa Waiver Document for certain countries including Oman: which you can obtained it by providing traveling documents and you can get it easily on line"*. Of those who said 'yes', 8 students offered the following comments. *"The shortness of the duration of visa after studying makes it difficult to get jobs to enable us apply our skills and getting a firmer grip on the knowledge we have acquired before we return to our home countries"*; *"There is a feeling that UK immigration policy is too unfriendly like curtailing of VISA duration when student finish their programme before expiration of VISA duration. Is like saying come and spend your money here for tuition and other maintenance but as soon as you finish your programme leave our country"*; *"General perception is that the British High Commission in Colombo, Sri Lanka is unwelcoming and Information Desk of the High Commission hardly give requested information. British Council in Sri Lanka too hardly provide any information of UK's Visa regulations/rules"*; *"The place where we apply for a UK visa in Kuwait is not really good enough to comply with the amount of people applying for a UK visa whether it's for tourism or study. There is also the application form needed to be filled and submitted to apply for the visa, if a person does not understand something in the application and you go ask the staff about it, some of them might reject you telling you that "you should do the application yourself, we cannot help you with it", which is annoying considering that the person usually waits for about an hour or more just to talk with staff or that there is no tolerance due to the language barrier (some of the people who apply are not good when it comes to speaking in English)"*; *"The immigration sent me the e-mail that I need ATAS to get my visa, whereas I don't need ATAS certificate because my program is taught degree masters. Therefore, I get my delayed visa"*; *"There is no embassy in my country" (Syria)*; *"As there is no post study work permit, these days many of them are reluctant to apply in UK universities. Because of this the popularity of UK universities has gone down in India. Most of them prefer US, Australian and Canadian universities over UK universities. This wasn't the scenario few years back when students had PSW"*; and *"Because the procedures were long, expensive and the chances of getting VISA were limited. Customer care was also not very good"*. From these comments, the two main concerns seem to be the difficulty/complexity of obtaining a visa in the home country and, to a lesser extent, issues over obtaining a post study work permit.

11 February 2014

## **Pharmacy Schools Council (PhSC) – Written evidence**

1. The Pharmacy Schools Council (PhSC) represents the collective interests of 27 UK schools of pharmacy by providing a source of expert opinion and advice on matters concerning pharmacy education from the perspective of UK schools.
2. The PhSC appreciates the opportunity to contribute to the Select Committee on Science and Technology call for evidence on the effects of immigration policy since 2010 on the recruitment of international STEM students. Our response provides an introductory explanation of the training required to become a pharmacist in the UK before then going on to consider the particular effects of the UK's immigration policies on international students in pharmacy schools.

### **Pharmacist training in the UK**

3. To practise as a pharmacist in Great Britain, an individual needs to be registered with the General Pharmaceutical Council (GPhC), the regulator of pharmacists. In Northern Ireland, pharmacists are registered with the Pharmaceutical Society Northern Ireland.
4. To become registered an individual must first complete a Masters of Pharmacy (MPharm) which will usually take four years. Following from that, a year of pre-registration training must be completed. Usually, pre-registration training occurs in either a community or hospital setting. Nevertheless, there are a limited number of opportunities for split placements where a trainee will spend six months in industry and a further six months in a patient-facing role in either a community or hospital setting.
5. Some international MPharm students will choose not to complete a pre-registration year in the UK and will instead return back to their home country, to this extent, UK pharmacy schools also contribute to the development and sustainability of pharmacy internationally. However, some international MPharm students do not have this choice as the registration requirements of their home country means that they are unable to complete their pre-registration training when they return.

### **The effects of immigration policy on pharmacy education**

- Which UK immigration policies are affecting international STEM students and what issues are they causing?
  - 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?
6. In March 2011, it was announced by the UK Border Agency (UKBA) that the Tier 1 Post-Study Work visa would be closed to new applicants from 6<sup>th</sup> April 2012. The closure of this route was identified to affect those international MPharm graduates who wished to complete their pharmacist education through completing a pre-registration year in Great Britain. The majority of pre-registration years take place in a community pharmacy setting, employment which often attracts a salary below the Tier 2 visa criteria (currently £20,300).

7. In response to this identified problem and to allow the international MPharm graduates to continue their pharmacy training in the UK, the Pharmacy Professional Sponsorship Scheme (PPSS) was established and introduced in the summer of 2012 as an interim solution to meet the needs of those students who were disadvantaged by the UKBA changes to the Tier 1 visa.

8. The Royal Pharmaceutical Society (RPS) is the licensed over-arching sponsor of the scheme which is a formal programme under the Tier 5 Government Authorised Exchange (GAE) category of the UKBA's points based immigration system. Successful applicants to the scheme receive a Certificate of Sponsorship that is essential in order to apply for a Tier 5 visa for leave to remain in Great Britain. The scheme is approved by the UKBA and the Department of Health. In 2012/13, 150 certificates of sponsorship were issued, with this increasing to 200 in the 6 months between July 2013 and January 2014.

### **The effects of limiting the PPSS**

9. As the **current scheme is licensed for 4 years, it does not cover students beginning MPharm courses from 2012 onwards. The scheme covers** MPharm graduates in 2012, 2013, 2014 and 2015 but not 2016. This is particularly problematic as there is variety as to the registration requirements within each country outside of the European Economic Area. For instance, to register as a pharmacist in Hong Kong an applicant must meet one of the following criteria:

*a. he/she holds a pharmacy degree awarded by the University of Hong Kong or the Chinese University of Hong Kong after the completion of a full time course of study at that university; or*

*b. non-local applicants must have completed his/her tertiary education of not less than three full-time academic years, or equivalent, in pharmacy, and be registered or be professionally qualified to be registered as a pharmacist, normally in the country in which he/she has completed that education.*<sup>109</sup>

10. Consequently, there is an expectation that international students who wish to register as a pharmacist in Hong Kong have already completed their pre-registration training. It is suggested that there is a possibility that those international students who are unable to complete their pre-registration training in the UK may be prevented from registering as pharmacists and progressing their career in their home country. This is a severe limitation and the potential negative effects on the careers of international students should not be underestimated. The PhSC strongly suggests that there is a need to consider how international students, unable to access a Tier 2 visa, can be enabled to complete their professional training which will allow them to return to their home country to practise as a registered pharmacist. In particular, there are concerns as to the effects of the current situation on the reputation of UK schools of pharmacy, and in relation, UK higher education more widely, by adding to perceptions that studying in the UK is overly complex, difficult and bureaucratic. We would like to stress that the negative ramifications of this will not just

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<sup>109</sup> Pharmacy and Poisons Board of Hong Kong, Home, Registration of Pharmacists, Registration Requirements, [http://www.ppbhk.org.hk/eng/registration\\_pharmacists/qualifications.html](http://www.ppbhk.org.hk/eng/registration_pharmacists/qualifications.html) (date last accessed 17/02/2014).

affect schools of pharmacy, rather it will have a cumulative effect on the reputation of UK higher education.

11. Indeed, one school of pharmacy has reflected on its experience of a visit to Brunei intended to promote the UK as a place to train to be a pharmacist. During this visit, the school was informed that due to uncertainty regarding the ability of international MPharm students to access a visa to allow them to complete their pre-registration training in the UK, students were now being advised to consider studying pharmacy in Australia rather than the UK. It has been reported that the same school received similar feedback during contact with careers advisors in Hong Kong, again students are being advised to consider Australia over the UK.

12. The fact that careers advisors in some countries are now actively briefing against students coming to UK schools of pharmacy is of great concern and actively challenges recent messages regarding the openness of the UK economy and higher education sector. Furthermore, there is a risk of depriving the UK of the contributions made by talented international students and this could have potential long-lasting effects on the UK economy by inhibiting gifted researchers from perceiving the UK as a place to further their career. This is at odds with the work of the Foreign and Commonwealth Office and the British Council to promote the benefits of the UK education system through its *UK Education* programme.

13. While the numbers of international students at UK schools of pharmacy varies, they form a vital part of the business plans of many UK schools and their associated higher education institutions. A school reported that it takes around 10 international students a year which generates approximately £580,000 of income for the MPharm programme; any reduction in demand is therefore likely to have an impact on a school's finances and this will have a direct effect on the finances of the higher education institution. Furthermore, the number of international students at each school of pharmacy will vary, with some schools taking on many more than 10 international students. Consequently, this figure is likely to be a conservative estimate and further indicates that a sustained reduction in demand from international students is likely to have a great impact. We would suggest that this will very likely have a cumulative effect on the wider higher education sector and its contribution to the UK economy. The economic and cultural contributions made by international students to a higher education institution's local area should not be underestimated.

14. Furthermore, some pharmacy schools also provide an alternative route into a career in pharmacy, the Overseas Pharmacists' Assessment Programme (OSPAP). This is the first step for a pharmacist who qualified outside of the European Economic Area to register as a pharmacist in England, Scotland and Wales. Following the successful completion of an OSPAP, graduates need to complete pre-registration training and will also require the appropriate visa. Those with a Masters OSPAP who graduated in 2012 or 2013 were able to apply to the PPSS; nevertheless, the PhSC has been informed that the demand for the OSPAP has reduced. One school reports that their OSPAP intake has halved when numbers for 2013/14 are compared to 2012/13, this has represented a loss of income to the school, and higher education institution, of approximately £150,000.

15. The PhSC has previously argued that the limitation of the PPSS is unfair to current international students who may have chosen to study an MPharm in the UK with the intention of completing a pre-registration year in the UK. It is suggested that the timing of the decision to close the Tier 1 route can be argued to have limited the ability for institutions to provide clear advice to prospective international students regarding their options following the successful completion of an MPharm. Furthermore, we believe there is a need for clarification that decisions regarding visas have not been made according to the costs of funding pre-registration years.

16. The experience of PhSC members suggests that there is usually an 18 month lead-in time to develop marketing materials intended for an international audience. As the scope of the PPSS scheme was not finalised until June, schools were unable to update international students as to the scope of the PPSS early enough for them to be fully informed as to the possible limitations placed on their pharmacy education before the UCAS application deadline, which for an MPharm course beginning in 2012/13 was 15<sup>th</sup> January 2012.

17. The PhSC previously requested for the PPSS to be extended for the September 2012 entry cohort. Nevertheless, in October 2013 the Department of Health confirmed that the PPSS will not be extended to cover 2016 graduates.

18. Recommendations of the Modernising Pharmacy Careers Programme Work stream I suggest that the MPharm should be integrated with the pre-registration year, leading to the MPharm being five years in length. These recommendations are still being considered. Nevertheless, international MPharm students are subject to a five year cap on their Tier 4 visas which can limit students' ability to complete the course if they need to repeat more than a year of study. Consequently, were the recommendations of Modernising Pharmacy Careers to be put in place, this concern would need to be considered in greater depth.

19. In conclusion, the PhSC would suggest that there is a need to consider the effects of immigration policies on the demand from international students to study pharmacy in the UK. It is suggested that the negative impact this may have on schools' business plans, and indeed the wider UK higher education sector and economy, should also be considered. In particular, it is suggested that there is a need to consider that, having completed an MPharm and a pre-registration year, registered international MPharm graduates who wish to remain in the UK will still be required to meet the criteria of a Tier 2 visa.

*20 February 2014*

## **Recruitment and Employment Confederation (REC) – Written evidence**

The REC represents over 3,500 recruitment businesses – 80 per cent of the UK's £26.5 billion industry by turnover – and 5,500 individual recruiters through its Institute of Recruitment Professionals. REC members supply workers into every sector of the UK economy. This includes STEM-related fields such as Technology, Engineering and Technical, Life Sciences, and Healthcare, each of which has a dedicated REC sector group.

The REC supports members and drives professionalism in the industry through free legal services, training and a comprehensive professional qualifications framework. All companies applying for membership must sign up to the REC Code of Professional Practice and pass a robust Compliance Test based on statutory regulations and higher ethical standards. Members must pass the test again every two years to maintain membership and the REC provides a range of support services to help members ensure they comply with the Code. There is also an independent Professional Standards Committee which accepts, investigates and acts upon complaints, with representation from employers (via the CBI) and workers (via the TUC).

Given the REC's focus and expertise, this submission focuses primarily on international STEM graduates in the UK labour market and their ability to pursue employment opportunities here after completing their studies.

### **Latest Labour Market Data**

#### Demand for STEM Skills

The REC undertakes research and collects monthly data on labour market trends from both recruiters and employers. The data from recruiters in the *Report on Jobs* is particularly valuable in forecasting trends, given recruiters' unique position at the sharp end of the jobs market.

This data routinely tracks about 6 weeks ahead of the national ONS figures and pinpoints sectors in most need of staff and which shortage skills are in particular demand.

According to the February 2014 *Report on Jobs*, recruiters across the UK reported that Engineering was the most in-demand sector for both permanent and temporary recruitment.

The data from this research over the last 13 months (Feb. 2013 – Feb. 2014 inclusive) reinforces the demand for staff in STEM sectors. Looking at permanent roles over the period, Engineering was the most in-demand sector nine times, and ranked in the top five in-demand sectors in 12 out of 13 months.

Staff demand was also high in the IT and Computing sector, which ranked as the most in-demand sector twice and in the top five every single time.

The other key STEM sectors ranked consistently as needing permanent staff were Nursing and Medical, which made the top five in-demand sectors 11 times, and Accounting and Financial, which was included in the top five a total of nine times. Temporary demand followed a similar pattern in STEM-related sectors.

The Report on Jobs data breaks down further into specific skills shortages for permanent and temporary hires. Below is the latest data from February 2014:

STEM skills in short supply for permanent roles:

- Engineering: Automotive, Civil engineering, Electronics, General engineering, Manufacturing, Rail, Telecoms.
- Accountancy/Financial: Accountants, Audit, Finance, Funds, Payroll, Purchase ledger, Tax.
- IT/Computing: C++, Developers, General IT, Java, .Net, PHP, Project managers, Support, Technical consultants.
- Construction: Surveyors.

STEM skills in short supply for temporary roles:

- Engineering: General engineering.
- Accountancy/Financial: Accounting, Payroll.
- IT/Computing: Business intelligence, Developers, Java, .Net, Project managers, SAP, Support, SQL.

#### Evidence from Recruiters on the Ground

In addition to the *Report on Jobs* data cited above, individual REC members recruiting into STEM fields, particularly Engineering and IT, have long reported difficulties in finding suitably qualified candidates to fill employer demand.

This includes both new graduates and those who have graduated and worked for a year or two, who formerly could stay in the UK on a post-study visa (and then switch to Tier 2). Not only are individual graduates struggling to stay on, but the UK economy is losing out on much needed talent.

Here are some comments from UK recruiters:

*“We are seeing a skills shortage across the board in IT. It is certainly difficult to fill the roles.”*

*“We only work with clients on a one-to-one basis. So if we are unable to fill the role, unless they happen to fill it themselves without recruiter support (which is rare), it goes unfilled.”*

*“We have had very good experiences with non-EU candidates. They are genuine professionals who can fill skills shortages and gaps in our market.”*

*“Some of our clients are smaller companies who really need talented people to grow. If they can’t get the right staff, the company is not growing.”*

These are the roles and skills where individual companies in the REC's Engineering Sector and IT Sector groups have reported particular shortages in recent months:

IT:

- Programmers
- Developers
- Software Engineers
- Coders generally
- Java (*serious shortages reported*)
- Oracle e-business
- SAP
- MS Suite Technical skills
- Web Developers
- Technical Architects
- Technical Project Managers
- Software Testers

Engineering:

- Civil Engineers
- Structural Engineers
- Mechanical Engineers
- Electrical Engineers
- Design Engineers
- Project leaders

#### Other market factors

Although immigration restrictions are making it difficult for recruiters and employers to find the right skills for the jobs available, this situation is exacerbated by other trends. For example, engineering and technical recruiters report an increasingly ageing workforce, coupled with insufficient new entrants from the resident labour market.

In addition, UK graduates are increasingly lured away to jobs in Europe, the Middle East or even further afield. This is based on growth markets abroad offering plentiful opportunities, plus a greater willingness among younger workers (particularly in their 20s and 30s) to move abroad. Overall, younger members of the highly-skilled UK workforce are much more mobile and open to the possibility of working internationally than previous generations.

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

#### HSMP/Tier 1/Tier 2/Post-Study Visa

REC members report that STEM graduates – many with shortage skills in high demand – are finding it very difficult to pursue post-study employment in the UK.

Over the past ten years, many recruiters and employers in STEM fields (as well as graduate candidates) relied on the Highly-Skilled Migrant Programme/Tier 1 routes and the Post-Study



Visa (and conversion to Tier 1 or 2). But since HSMP/Tier 1 General and the Post-Study Visa have been scrapped, recruiters have seen a marked drop in the supply of STEM graduates.

And even when graduates do attempt to stay in the UK and work, it is extremely difficult to convince employers to sponsor them through Tier 2, given the cost, complexity and uncertainty of the process. This includes those graduates on a Post-Study Visa who need sponsorship to switch to Tier 2.

In addition to the cost and complexity, many companies are still operating with a very stretched workforce, so they simply do not have the time to manage the sponsorship process, especially with no guarantee they will be able to hire at the end. Just recruiting is time-consuming enough, which is why they rely on specialist recruiters. But recruiters cannot apply for the visa on the employer's behalf, nor can an agency place STEM graduates on a contract basis without the proper visa in place.

*"Overall, few clients will go down the sponsorship route."*

*"So many SMEs just won't consider sponsorship and simply don't appoint anyone."*

*"Even when candidates do have a Post-Study Visa, it is now much harder to move them to a full working visa."*

*"Smaller companies lose out – either because they cannot manage the cost, time and complexity of the sponsorship process as a large company can, or because they have had their fingers burned with previous applications."*

While it is the employer who must apply for sponsorship and a Tier 2 visa, recruiters do help them through the process. For example, recruiters provide the evidence of job advertisements and their attempts to find a UK/EU national first, to satisfy the Resident Labour Market Test. They also regularly help employers understand and navigate the various stages of Tier 2 (General) and Tier 2 (ICT) applications. This takes significant time and resource and there is no guarantee for either the employer or recruiter that the application will be successful.

#### Immigration Cap

REC members also worry that as the jobs market picks up, the yearly Tier 2 cap will become much more problematic and could ultimately prevent employers from even being able to make Tier 2 applications for much-needed hires.

#### Cooling-off Period

Even graduates who have been successfully sponsored via Tier 2 in the past are struggling to pursue further employment, given the new time limits. Some recruiters report that they have pools of candidates with much-needed skills who want to return to work in the UK. But they are stuck in the "cooling off period" required before making a fresh Tier 2 application and returning to Britain – even though companies here want to hire them and need their expertise.

### Settlement

Finally, the changes to the settlement rules are also making companies feel uncomfortable and further dissuading them from applying for Tier 2 visas. Given the time and financial investment most companies make in new hires, they want an element of certainty that the immigration rules will not prevent them from retaining their staff over the longer term.

Companies want to grow their business for the future, not just get the right person for a few years, train and develop them, and then see them forced out of the UK.

### **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?**

Although recruiters are not directly involved with applications to STEM courses in the UK, they do see the impact in their candidate pools.

*“We have definitely seen a drop-off in supply. When the rules first changed, we still had Post-Study Visa holders applying, but that has now fallen away.”*

*“We can tell by the responses to jobs and roles that there is an impact on the number of students coming. Generally speaking, the volume of people coming to the UK for computer science and related degrees is dropping off.”*

*“The restrictions are very much putting bright international students off from studying in the UK.”*

Recruiters speak to candidates – including international STEM graduates – every week. They report that for certain STEM fields, UK job prospects play an enormous role in students’ decision on where to study.

For example, the UK has been a magnet for talented students in the IT industry because of the innovation that happens here – not least in the City and Silicon Roundabout. Graduates want to be part of that and start their careers immersed in this dynamism.

English also plays a role – because it is the international language of IT, the UK has a strategic advantage in getting the best people interested in coming here, and therefore remaining at the forefront of the global industry. But without the chance to stay and work afterwards, recruiters report that students are less likely to come to the UK to study in the first place.

### **Solutions and recommendations:**

#### Long-term approach

Of course, the principal solution for the UK’s long-term STEM skills needs is encouraging sufficient numbers of talented young British people to study STEM and then pursue – and

remain in – careers in related fields. There are a number of excellent initiatives underway to drive this, some of which REC members are involved in, such as “Tomorrow’s Engineers”.

But this is a long-term process and even if properly funded, perfectly executed and successfully delivered (which is by no means guaranteed), cannot meet the current UK skills shortages. Nor is EU-based migration providing STEM graduates in volumes large enough to meet current demand, partly because it excludes nationals from some of the world’s largest STEM talent pools like India, China, Pakistan and North America.

Therefore an interim immigration solution is needed – and with great urgency – to prevent the UK losing its place among the highest-skilled, world-leading STEM economies.

Recommendations for interim policy solutions:

- 1) Reinstate a post-study work visa of at least two years for STEM sectors
  - While it may not be politically viable to reintroduce a post-study visa for all graduates, the acute shortage of STEM skills could be addressed by a special STEM post-study visa for those in the UK on relevant courses.
  - This could be further targeted to a certain degree level, for example a minimum of a Bachelor’s or Master’s Degree, or in named disciplines (IT, Engineering, etc.)
  - It could also be earmarked for graduates on particular courses at named universities to ensure it attracts students completing the very best programmes. This was the type of approach used by the former HSMP route for MBA graduates.
  - Any reinstated post-study visa must have clear switching provisions to make it possible for graduates who stay and work for the initial period (e.g. two years) to extend their stay and continue adding value to the UK economy.
  - A new post-study visa and switching provisions could be linked to an expanded Shortage Occupation List (see below) to ensure the most in-demand roles are able to be filled.
- 2) Exempt STEM roles from the RLMT
  - Just as roles on the Shortage Occupation List (SOL) are exempted from the Resident Labour Market Test, it would be expedient to exempt STEM roles from this requirement too.
  - Although it is a small administrative change, the signal sent to STEM employers would help ease some of the psychological hurdles businesses often face when deciding whether to invest the time and money in applying for sponsorship.
- 3) Expanding the SOL to make it easier for employers to use Tier 2
  - One solution which requires no new policy or administrative change would be for the MAC and Home Office to expand the current SOL to include a wider range of STEM roles, especially in engineering and IT, at the next review in late 2014.
  - Data from the REC’s *Report on Jobs* and other sources should be utilised to help inform this.

- 4) Assess visa pricing and process barriers that disproportionately affect SMEs
  - UKVI has set out an agenda for customer service improvement that is welcome, especially given past problems with excessive delays, unreachable staff and unreliable systems. If this agenda is properly delivered, it could help encourage more employers to apply in future, but this change of outlook will take time to filter through to businesses.
  - In the interim, a concentrated campaign to help support SME applicants with better guidance and advice, alongside a review of the fees, would be helpful. Having named UKVI advisers who are familiar with dealing with SMEs would be a valuable step, as would proactive partnership events with business bodies like the CBI, BCC and FSB, in which UKVI could reach out to SMEs and 'demystify' the process.
- 5) Bring forward the unused balance from the immigration cap's monthly quotas
  - As economic growth picks up, so too do business worries about the immigration threshold. Given that the cap has not been reached in recent years, the Government should hold the balance of unused visas as a guarantee for future demand. This means that any monthly allocated unmet could be used by applicants in future and thus avoid stifling economic growth.
  - As the yearly and monthly caps have already been 'budgeted' in the Government's overall immigration policy, this approach would not lead to an overall increase in the allocated limits.

*20 February 2014*

## Research Councils UK (RCUK) – Written evidence

1. Research Councils UK (RCUK) is a strategic partnership of the UK's seven Research Councils who annually invest around £3 billion in research. We support excellent research, as judged by peer review, which has an impact on the growth, prosperity and wellbeing of the UK. To maintain the UK's global research position we offer a diverse range of funding opportunities, foster international collaborations and provide access to the best facilities and infrastructure around the world. We also support the training and career development of researchers and work with them to inspire young people and engage the wider public with research. To maximise the impact of research on economic growth and societal wellbeing we work in partnership with other research funders including the Technology Strategy Board, the UK Higher Education Funding Councils, business, government, and charitable organisations. Further details are available at [www.rcuk.ac.uk](http://www.rcuk.ac.uk).
2. This evidence is submitted by RCUK and represents its independent views. The submission is made on behalf of the following Councils:
  - Arts and Humanities Research Council (AHRC)
  - Biotechnology and Biological Sciences Research Council (BBSRC)
  - Engineering and Physical Sciences Research Council (EPSRC)
  - Economic and Social Research Council (ESRC)
  - Medical Research Council (MRC)
  - Natural Environment Research Council (NERC)
  - Science and Technology Facilities Council (STFC)

### Background

3. The ability to attract the best international talent from a global labour market is essential for the UK research base, particularly in areas where the UK currently lacks sufficient home-grown highly skilled researchers. If the UK cannot attract sufficient high quality researchers, this will affect not only the ability to perform excellent research in the UK, but the capacity to form collaborative international relationships.
4. RCUK's vision for 'Research Careers and Diversity' is based on the understanding that investment in attracting, training and managing the next generation of world-class researchers makes a major contribution to the impact of research and benefits the economic and social wellbeing in the UK. This is to be delivered through:
  - Ensuring that the best potential researchers from a diverse population are attracted into research careers;
  - Enhancing the quality of research training and the employability of early stage researchers;
  - Enhancing the impact of UK researchers by promoting improved career development and management of research staff by research organisations.

5. RCUK continues to deliver this vision through provision of funding for doctoral training grants and fellowships at research organisations to address advancements in research. PhD and EngD Studentships are primarily aimed at UK applicants; though 10% of EPSRC studentships are specifically aimed at the best international students, and eligibility to apply for a number of ESRC PhD studentships in Advanced Quantitative Methods has been opened up to excellent international applicants. Fellowships hosted by UK research organisations are open to applicants worldwide. It is part of the RCUK vision to produce highly skilled researchers, both within the UK and internationally, in order to advance and improve crucial scientific areas.

### **Questions Raised by the Committee**

**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?**

6. No response

**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?**

7. Unfortunately, despite the increased immigration options available to recently graduated students, there is a concern across the wider research community that international students may believe they are not welcome in the UK. Countries such as Germany and France have already taken steps to adapt their immigration policies in order to help attract the brightest and best STEM students. At a time when UK politicians and media were highlighting the strengthening controls on migrants, France specifically targeted Masters and PhD level Indian nationals to encourage and improve their access to study and subsequent long term business opportunities<sup>110</sup>. As highlighted by Universities UK in a recent paper, “Some of the reforms and rhetoric around immigration in the past have led to damaging, and often misleading, headlines overseas about the ability of genuine international students to come here to study”<sup>111</sup>; it is this issue, rather than actual policy changes, which help deter prospective migrants.

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

8. The UK SBS<sup>112</sup> immigration team has undertaken casework, discussions and meetings with other stakeholders. This has suggested that, while the change to immigration policies may have had an initial impact across the research community, it is the perception brought about by these changes which may have had the greater impact, rather than the policies themselves. The withdrawal of the Tier 1 Post Study route has been widely criticised as a detractor to both study and subsequent employment in the UK. The subsequent initiatives that have provided further options to attract and retain

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<sup>110</sup> <http://www.ambafrance-in.org/Facilitating-visas-for-Indian,11432>

<sup>111</sup> <http://www.universitiesuk.ac.uk/highereducation/Pages/UniversitiesUKresponsetoimmigrationbill.aspx>

<sup>112</sup> The UK Shared Business Services (UK SBS) supports the Research Councils through the delivery of a range of services - Human Resources, Payroll, Finance, Strategic Procurement, ISS and Grants (including studentships and fellowships).

talented individuals, such as the improved opportunities for switching into the Tier 2 route, the inclusion of “New Entrant” roles in the Standard Occupation Classification codes for all PhD level occupations and the introduction of the Tier 4 Doctorate Extension scheme, do not appear to have had much success in reducing this negative perception.

9. Further efforts should be made to develop the understanding amongst migrants, HEIs and future employers of both the benefits and opportunities presented through current immigration routes. The on-going discussions between the Home Office, the Tier 1 Exceptional Talent competent bodies and the Research Councils may help to develop an increased awareness and further utilisation of the Tier 1 Exceptional Promise route.
10. Frequent change to immigration policy could have a negative impact on both prospective migrants and employers. These changes may lead to confusion over what future opportunities might be possible for overseas students. Prospective students may question whether undertaking their studies in the UK is worthwhile when there may be difficulties in getting the appropriate visa for further study or work purposes, while prospective employers, may not be aware of changes to immigration policies that would enable them to engage with particular individuals.
11. While not a formal immigration policy, the UKVI’s movement away from a purely points based assessment, to a more subjective decision making process when assessing visa applications, introduces potential risk that a lack of clarity and transparency in the application process may lead to further confusion over immigration options for both employers and migrants.

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

12. While the Bill is concerned with measures to deter illegal migrants, there is concern that there may be unforeseen consequences across the research community. The potential impact of proposed visa fee changes, the perception by migrants that they may find it harder to live in the UK, due to additional checks affecting driver’s licence eligibility, bank accounts and property rental potential, all help to reinforce preconceived ideas that the UK is ‘closed for business’. When an individual is making the important decision to move away from their home to undertake study and work, the perception of additional hurdles which they may face could lead to them opting instead for one of the UK’s competitors. We could thus risk losing high quality individuals who might otherwise choose to study and work in the UK.

**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?**

13. The Immigration Team in UK SBS, which supports the Research Councils, reviews immigration policy changes and undertakes assessments on the strategic and operational impact across the councils. However, it is the general immigration impact that is most

frequently analysed, and not the specific impact on STEM students. Responses<sup>113</sup> to consultations and requests for information include some information on how students and their prospective employers may be impacted. However the resulting policy change assessments are invariably based on the impact on the employer rather than addressing specific STEM research workforce issues.

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

14. A recent report by Universities UK stated “the number of non-EU entrants studying science, technology, engineering and mathematics (STEM) subjects fell by almost 8% in 2011–12.”<sup>114</sup> The reasons for these changes are varied, with competition with international HEIs and the impact of the global economic downturn all contributing. Increased political discussion and negative immigration stories in the media, both within the UK and abroad, along with the rapid changes of the UK immigration policies are likely to act as a negative factor when STEM students consider where to study and pursue their future careers.

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

15. No response

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

16. Those Research Councils who employ researchers may be able to provide information on individuals they have supported through grants or fellowships, and we are able to confirm whether we have engaged with individuals who have switched from Tier 4 into Tier 2 or have received a Tier 4 Doctorate Extension. However, as we recruit PhD level roles based on the ability and potential of the individual, rather than on nationality, we do not currently have a means of identifying migrants who have applied, for but been unsuccessful in their application for a post with the Research Councils.

**Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

17. Not applicable.

**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?**

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<sup>113</sup> Responses by the Research Councils UK To MAC Call for Evidence on the Review of the Tier 2 Codes of Practice and Updating the Tier 2 NQF6+ Occupation List to SOC 2010 and MAC Consultation on the level of the 2012/13 Annual Limit on Tier 2 and Associated Policies

<sup>114</sup> <http://www.universitiesuk.ac.uk/highereducation/Documents/2013/PatternsAndTrendsInUKHigherEducation2013.pdf>



18. The long term importance of attracting the brightest and the best individuals to the UK cannot be highlighted enough. In a global economy the UK competes for talent with other countries and regions and the mobility of students and researchers promotes the flow of knowledge and ideas and benefits national and global economic development. The ability for the brightest minds to work together closely on research to address the challenges facing our societies is of immense importance. The UK has put increased emphasis on the internationalisation of its research and Higher Education systems, striving for ever higher levels of excellence and therefore the concern across the wider research community that international students may believe they are not welcome in the UK may pose a risk to UK HEIs.

*20 February 2014*

Professor Colin Riordan, Universities UK International Policy Network, Professor Robert Allison, Loughborough University and Professor Gina Rippon, Aston University – Oral evidence (QQ 32-41)

**Professor Colin Riordan, Universities UK International Policy Network, Professor Robert Allison, Loughborough University and Professor Gina Rippon, Aston University – Oral evidence (QQ 32-41)**

[Transcript to be found under Professor Robert Allison, Loughborough University](#)

Professor Gina Rippon, Aston University, Professor Colin Riordan, Universities UK International Policy Network and Professor Robert Allison, Loughborough University – Oral evidence (QQ 32-41)

**Professor Gina Rippon, Aston University, Professor Colin Riordan, Universities UK International Policy Network and Professor Robert Allison, Loughborough University – Oral evidence (QQ 32-41)**

[Transcript to be found under Professor Robert Allison, Loughborough University](#)

## Royal Academy of Engineering (RAEng) – Written evidence

### Introduction

1. The Royal Academy of Engineering welcomes the opportunity to submit evidence to this important inquiry on international STEM students. The government has set a target to reduce net migration into the UK from the hundreds of thousands to the tens of thousands. This has implications for both recruitment of students in to HE and providing sufficient engineering skills for the short term needs the economy.
2. The Academy is concerned that the government's net migration target can only be met by significantly reducing the number of international students coming to the UK. While the Academy recognises there is no cap on Non-EU student numbers there is a perception that government is targeting students. This has created a tension between Home Office targets to reduce net migration and BIS targets to expand international student numbers into HE by 15-20%<sup>115</sup>.
3. In order to maintain our international standing and drive future economic growth, the UK must continue to be able to attract the best engineering talent from around the world to come and study and work in significant numbers. The Academy has reported previously on the engineering skills shortage in the UK<sup>116</sup>. While in the longer term, the UK needs to increase the number of UK domiciled graduates, the short term pressures require that graduating international students are allowed to work in the UK.
4. The migrant cap and the tightening of conditions for Post-Study Work (PSW) add to the perception that the UK is closing its doors to non-EU international students. This is threatening the competitiveness and international reputation of the UK's critically important higher education sector, particularly in engineering. International education exports are estimated by government to bring £17.5bn income to the UK economy of which 61% is contributed from HE<sup>117</sup>.
5. The requirement for non-EU graduates to return to their home countries after graduation and the closure of the post study work (PSW) route also puts the UK engineering research base at threat, and limits opportunities for UK businesses to employ the excellent graduates from UK universities. The Academy therefore welcomes some of the measures put in place in response to concerns from the science and engineering communities, such as the right for doctoral students to remain for a year following graduation and the opening of the post study work route for those students earning over a threshold salary.

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<sup>115</sup> International education – global growth and prosperity. HM Government July 2013

<https://www.gov.uk/government/publications/international-education-strategy-global-growth-and-prosperity>

<sup>116</sup> Jobs and Growth. Royal Academy of Engineering 2012

[https://www.raeng.org.uk/news/publications/list/reports/Jobs\\_and\\_Growth.pdf](https://www.raeng.org.uk/news/publications/list/reports/Jobs_and_Growth.pdf)

<sup>117</sup> International education industrial strategy

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/225562/international-education-industrial-strategy-infographics.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225562/international-education-industrial-strategy-infographics.pdf)

6. However, the Academy still has concern that international students will choose other countries over the UK which do not impose or which are *not perceived to impose* as stringent immigration restrictions and visa controls. The perception of the current immigration bill - that the UK is closing its borders increasingly more tightly, will drive more international students to other countries, to the detriment of UK education and the UK economy. The competition for attracting international students from other countries is intensifying – the US, Germany, France, Canada and Australia are all targeting international students and have reinstated their right to work after graduating from degree programmes.
7. International students also provide significant financial contribution to the UK's wider economy. It has been estimated that a reduction of 50,000 international students (staying in the UK for an average of two to three years each) will result in a loss of around £2–3 billion per year in overall economic contribution.<sup>118</sup>

### **International students in engineering higher education**

8. In this document we have focussed on the impact of changes to immigration rules on undergraduate engineering applications and enrolments. The Academy is aware that other organisations are submitting evidence which focusses on postgraduate students.
9. The contribution of international students to engineering HE provides important additional income which helps support provision for UK domiciled students. A reduction in the number of international students studying engineering in the UK would clearly be a serious blow to engineering provision in the UK.
10. Higher Education as a whole has had on average around 8% applicants from Non-EU countries over the last five years. Engineering as a subject group has the highest proportion of applicants from non-EU countries across all HE subject groups, averaging 22% over the last five years. Detailed tables of applications from HESA data for each subject grouping in HE over the last five years are provided in annex 1. The high proportion of international students in engineering reflects the reputation of engineering higher education in the UK attracting students from around the world. In addition the sector is working to recruit more highly qualified from UK domicile into engineering to meet the increasing demands from the economy.
11. The data on applications to higher education in annex 1 suggests there is currently no adverse effect on overall applications to higher education because of changes to the immigration rules. It is important to note the data in annex 1 is *applications* to degree programmes. There can be up to applications per *applicant*.

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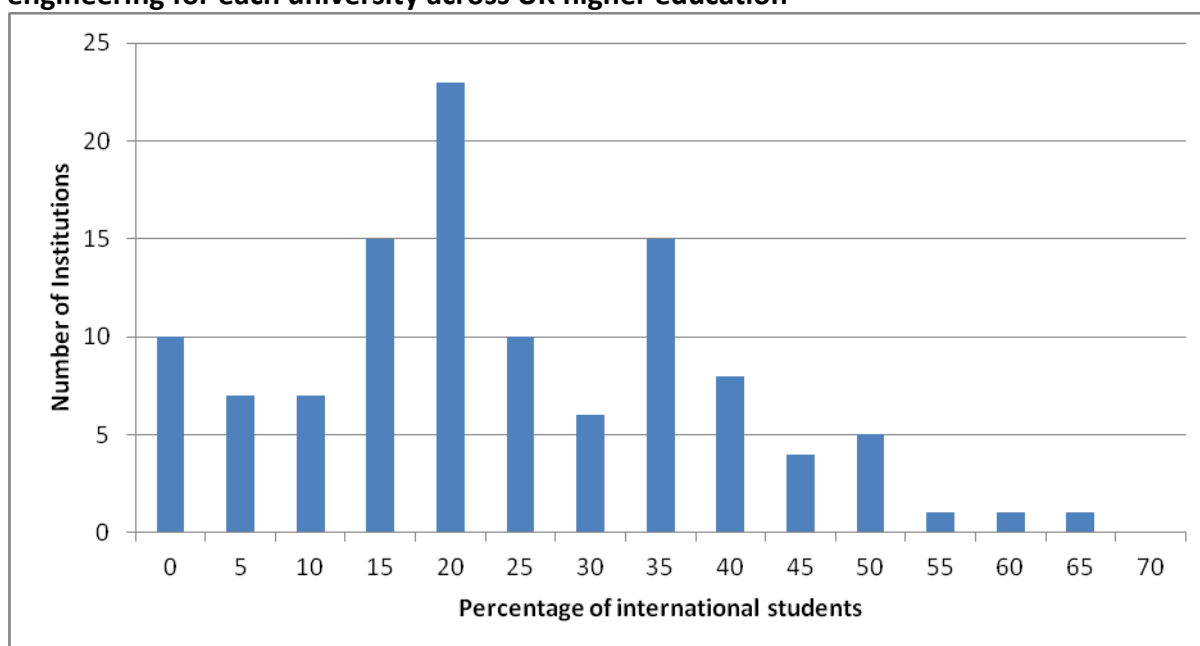
<sup>118</sup> [International students and net migration in the UK](#), IPPR, May 2012

12. Across the whole of Higher Education, there was a dip in the number of international students in 2012/13 but this has subsequently increased and is at a 5 year peak across the whole of the HE sector at 10%. For engineering, international students make up a significantly higher proportion of applications, currently at 24%. Engineering is followed by Business and Administrative subjects (20%) and Law (19%).
13. The proportion of international students to engineering also fell by 8% between 2010/11 and 2011/12, but closer investigation of the data shows this was actually because of an increase in the proportion of UK domiciled students. The cause of increased applications from UK domiciled students may have been due to increased demand for places ahead of the increase in tuition fees. The number of acceptances of offers on to engineering HE courses follows the same trends as applications.
14. Applications to engineering undergraduate programmes from international students have been steadily increasing at an average rate of 6% over the last four years. Applications from international students currently stand at approximately 32,800, against a total of around 139,000.
15. EngineeringUK provides data on applications, acceptances and achievements in HE STEM subjects across all domiciles in its annual report<sup>119</sup>. Its analysis shows differences in applications between specific disciplines for undergraduate engineering courses. The Academy has particular concern for electronic and electrical engineering and for chemical, process and energy engineering. Both have around a 30-35% of applications from non-EU students. There is a question of sustainability of provision in these subjects if the Immigration Bill currently going through Parliament has a detrimental impact on future applications from non-EU students.
16. The Academy also has concern that while on average, Higher Education institutions have around 24% students from non-EU background enrolled on engineering programmes, there are a significant proportion of universities with substantially higher proportions of international students in their cohorts. Chart 1 below shows the proportions of international students in engineering programmes across UK HE institutions. While there is a clear peak of institutions with around 20% non-EU students, a significant number of universities have more than a third non-EU students enrolled on engineering programmes.

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<sup>119</sup> [www.engineeringuk.com](http://www.engineeringuk.com)

**Chart 1: Percentage of international students as a proportion of total students in engineering for each university across UK higher education**



17. The Academy has undertaken some initial analysis of non-EU student enrolment, specifically examining Indian and Chinese students in both engineering and technology, and computer science undergraduate programmes over the last five years. The data shows a very mixed picture across country or origin, HE Institution and subject group. Annex 2 provides detailed tables.
18. For Indian students, table A2.1 shows that overall there is a peak of total enrolments at 2011/12. Following the introduction of the immigration bill and restriction of post study work route the number of students fell. However, it is apparent that 35 universities have experienced a decrease in international students over the last three years since the Immigration Bill, but 39 universities have seen a net increase of Indian students. It should be noted however that the absolute number of students is small – 1600 students in total in 2012/13 and the increases for each university were typically 5 to 10 students.
19. For Chinese students enrolled on undergraduate engineering programmes, table A2.2 paints a different picture. For this group, there has been a continuous increase in enrolments over the last five years. Twenty one HE institutions offering engineering and technology courses have seen a decline in the number of Chinese students enrolled whereas 40 universities have seen an increase.
20. For Indian students on computer science courses (table A2.3), 25 universities have seen a decline in the number of enrolments over the three year period from 2010/11 to 2012/13, while 17 universities have seen a net increase over the period. The absolute number of undergraduate Indian computer science students however is very small, at 450 students in total. For Chinese students studying computer science (table A2.4), 31 universities have seen a decline, while 34 universities have seen an increase but again the absolute numbers are small, around 900.

21. It is very difficult therefore to make any firm commentary about the impact of the previous changes to immigration rules for undergraduate students and what future impact the bill currently progressing through parliament might make. However, while the data suggests the trends in applications from international students is stable, the UK's higher education system is regarded as one of the best in the world and the Academy believes this should be a growth area, providing benefit to the UK economy.
22. Another serious concern for sustainability of engineering HE provision with tightened immigration controls is the impact on international postgraduate students. The proportions of international students in engineering is significantly more marked in the case of postgraduate degrees where UK domiciled Masters and PhD students are now in the minority compared with EU and non-EU domiciled students. Non-EU students account for 60% of taught postgraduate engineering students and 50% of engineering PhD research students.
23. Finally, there is evidence that a more flexible approach to migration can enhance the quality of engineering teaching and research carried out in UK universities. The employment of foreign academic staff can allow teaching and research to continue in areas where the skills gap means UK staff numbers are falling. Migration is important for a researcher's career, as with industry it helps institutions build networks and gain from different perspectives. Science subjects are particularly reliant on overseas staff; in 2002/3, over a third of all non-UK nationals in academia worked in science and engineering although these subjects accounted for only one fifth of the workforce.<sup>120</sup>

### **About the Royal Academy of Engineering**

24. Founded in 1976, the Royal Academy of Engineering (the Academy) promotes the engineering and technological welfare of the country. Our fellowship - comprising the UK's most eminent engineers - provides the leadership and expertise for our activities, which focus on the relationships between engineering, technology, and the quality of life. As a national academy, we provide independent and impartial advice to government; work to secure the next generation of engineers; and provide a voice for the UK's engineering community

*6 March 2014*

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<sup>120</sup> POSTnote n309, June 2008 - [International Migration of Scientists and Engineers](#)



## Annex 1: Domicile of applications to HE by JACS group

**Note: 2011 – restrictions on work visas for international students**

**2012: increasing tuition fees for UK domiciled students in England**

<b>TOTAL HIGHER EDUCATION</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	1841990	1998375	2264550	2359055	2051670
EU	126080	146965	183740	201185	173780
Non-EU	182330	196100	218055	232665	253485
Total	2150400	2341440	2666345	2792905	2478935
Non-EU % of total	8%	8%	8%	8%	10%

<b>A: MEDICINE AND DENTISTRY</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	62375	68590	75515	77965	74880
EU	5935	6705	8875	8705	7860
Non-EU	8175	9185	10420	11430	12575
Total	76485	84480	94810	98100	95315
Non-EU % of total	11%	11%	11%	12%	13%

<b>B: SUBJECTS ALLIED TO MEDICINE</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	194680	224870	299360	338405	340865
EU	10070	10240	15715	17430	16300
Non-EU	8690	10400	11095	11600	12150
Total	213440	245510	326170	367435	369315
Non-EU % of total	4%	4%	3%	3%	3%

<b>C: BIOLOGICAL SCIENCES</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	157110	166685	192750	201880	189365
EU	7715	9190	11955	13450	13510
Non-EU	6840	7875	9005	10395	12095
Total	171665	183750	213710	225725	214970
Non-EU % of total	4%	4%	4%	5%	6%

**D: VETERINARY  
SCIENCES,  
AGRICULTURE  
AND RELATED**

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	15425	16900	19845	21680	20455
EU	1265	1400	1920	1850	1695
Non-EU	835	885	1065	1075	1380
Total	17525	19185	22830	24605	23530
Non-EU % of total	5%	5%	5%	4%	6%

**F: PHYSICAL  
SCIENCES**

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	69685	72965	81420	88335	86515
EU	3065	3595	4710	5270	5055
Non-EU	4175	4445	5290	5390	6295
Total	76925	81005	91420	98995	97865
Int % of tot	5%	5%	6%	5%	6%

**G:  
MATHEMATICAL  
AND  
COMPUTATIONAL  
SCIENCES**

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	86045	94485	104915	110425	100435
EU	5360	6345	7620	9755	8460
Non-EU	10450	10730	11425	11300	11495
Total	101855	111560	123960	131480	120390
Non-EU % of total	10%	10%	9%	9%	10%

<b>H: ENGINEERING</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	79715	90685	99690	105820	94140
EU	9735	11975	13330	14425	11735
Non-EU	26055	28590	31025	31010	32800
Total	115505	131250	144045	151255	138675
Non-EU % of total	23%	22%	22%	21%	24%

<b>J: TECHNOLOGIES</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	7455	8410	9270	9190	7310
EU	620	655	820	905	875
Non-EU	770	920	1055	1010	955
Total	8845	9985	11145	11105	9140
Non-EU % of total	9%	9%	9%	9%	10%

**K:**

**ARCHITECTURE,  
BUILDING AND  
PLANNING**

	2008/09	2009/10	2010/11	2011/12	2012/13
UK	40125	38075	36365	36375	29705
EU	4790	5470	6450	6665	4860
Non-EU	4760	5270	5725	6545	6760
Total	49675	48815	48540	49585	41325
Non-EU % of total	10%	11%	12%	13%	16%

**L: SOCIAL**

**SCIENCES**

	2008/09	2009/10	2010/11	2011/12	2012/13
UK	151275	165865	191765	196420	169845
EU	12615	14980	18235	19420	16175
Non-EU	19600	21175	22835	24625	24895
Total	183490	202020	232835	240465	210915
Non-EU % of total	11%	10%	10%	10%	12%

**M: LAW**

	2008/09	2009/10	2010/11	2011/12	2012/13
UK	84955	88815	90875	92125	84290
EU	6265	7015	8415	9090	8480
Non-EU	13255	14705	17295	20185	22300
Total	104475	110535	116585	121400	115070
Non-EU % of total	13%	13%	15%	17%	19%

**N: BUSINESS  
AND  
ADMINISTRATIVE  
STUDIES**

	2008/09	2009/10	2010/11	2011/12	2012/13
UK	194805	210345	224525	233805	212825
EU	21085	24465	29190	33910	28220
Non-EU	44770	45280	49845	54430	60625
Total	260660	280090	303560	322145	301670
Non-EU % of total	17%	16%	16%	17%	20%

**P: MASS  
COMMUNICATIONS  
AND  
DOCUMENTATION**

	2008/09	2009/10	2010/11	2011/12	2012/13
UK	42340	46740	50570	53420	44855
EU	2670	3530	4450	5150	4375
Non-EU	2375	2385	2875	3105	3415
Total	47385	52655	57895	61675	52645
Non-EU % of total	5%	5%	5%	5%	6%

**R: LINGUISTICS,  
CLASSICS AND  
RELATED**

<b>SUBJECTS</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	62420	65305	68840	65895	59600
EU	2135	2320	3195	3100	2805
Non-EU	1555	2075	2140	2380	2830
Total	66110	69700	74175	71375	65235
Non-EU % of total	2%	3%	3%	3%	4%

**S: EUROPEAN  
LANGUAGES,  
LITERATURE  
AND RELATED**

<b>SUBJECTS</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	20835	21485	22420	22280	19535
EU	1950	2170	2325	2400	2080
Non-EU	560	580	630	665	710
Total	23345	24235	25375	25345	22325
Non-EU % of total	2%	2%	2%	3%	3%

**T: EASTERN,  
ASIATIC,  
AFRICAN,  
AMERICAN,  
AUSTRALASIAN  
LANG, LIT AND  
RELATED**

<b>SUBJECTS</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	6725	6820	7270	7210	5610
EU	515	650	690	780	580
Non-EU	230	280	350	320	340
Total	7470	7750	8310	8310	6530
Non-EU % of total	3%	4%	4%	4%	5%

**V: HISTORICAL  
AND  
PHILOSOPHICAL  
STUDIES**

<b>SUBJECTS</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	69155	74180	78325	77180	65155
EU	2270	2505	2880	2980	2515
Non-EU	1885	2320	2500	2680	2660
Total	73310	79005	83705	82840	70330
Non-EU % of total	3%	3%	3%	3%	4%

**W: CREATIVE  
ARTS AND  
DESIGN**

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	183280	199960	241100	255215	204235
EU	9495	11540	16200	18410	13605
Non-EU	7120	7465	10695	11765	12400
Total	199895	218965	267995	285390	230240
Non-EU % of total	4%	3%	4%	4%	5%

**X: EDUCATION**

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	68875	73505	85375	90855	2615
EU	1395	1820	2140	2225	25
Non-EU	510	435	565	580	15
Total	70780	75760	88080	93660	2655
Non-EU % of total	1%	1%	1%	1%	1%

**Y: COMBINED  
STUDIES**

	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
UK	233200	251130	271575	262325	220980
EU	15985	18830	23045	23705	21200
Non-EU	18105	19320	20275	20290	22575
Total	267290	289280	314895	306320	264755
Non-EU % of total	7%	7%	6%	7%	9%

**ANNEX 2: INDIAN AND CHINESE UNDERGRADUATE STUDENTS IN ENGINEERING AND COMPUTING BY HE INSTITUTION**

**Table A2:1 Number of undergraduate Indian students in engineering higher education – 2008/9 to 2012/13** The table is sorted by largest negative 3 year change (2010/11 to 2012/13)

Engineering and Technology - Indian	2008/09	2009/10	2010/11	2011/12	2012/13	3 yr change abs	3 yr change %
<b>Total students</b>	<b>1445</b>	<b>1610</b>	<b>1690</b>	<b>1820</b>	<b>1625</b>	<b>210</b>	<b>13.0</b>
The University of Wolverhampton	45	50	65	65	40	-25	-38.5
Glasgow Caledonian University	80	70	30	15	10	-20	-66.7
London Metropolitan University	15	25	25	15	5	-20	-80.0
University of Hertfordshire	55	60	55	45	40	-15	-27.3
The University of Strathclyde	10	25	25	15	10	-15	-60.0
The City University	15	20	25	25	10	-15	-60.0
The University of Northumbria at Newcastle	15	20	35	35	20	-15	-42.9
The University of Brighton	20	30	15	10	5	-10	-66.7
The Robert Gordon University	10	25	15	5	5	-10	-66.7
Queen Mary University of London	20	25	15	10	5	-10	-66.7
The University of Liverpool	30	35	35	25	25	-10	-28.6
The University of East London	20	30	30	25	20	-10	-33.3
The University of Leicester	20	30	30	30	20	-10	-33.3
Kingston University	30	35	30	40	20	-10	-33.3
De Montfort University	10	10	20	20	10	-10	-50.0
The University of Greenwich	35	55	40	40	35	-5	-12.5
The University of Portsmouth	10	15	5	5	0	-5	-100.0
Birmingham City University	30	20	15	10	10	-5	-33.3
Brunel University	20	30	25	20	20	-5	-20.0
King's College London	15	10	5	5	0	-5	-100.0
University of the Arts, London	5	5	5	0	0	-5	-100.0
The University of Central Lancashire	5	5	5	0	0	-5	-100.0
The University of West London	0	10	5	5	0	-5	-100.0

# Royal Academy of Engineering (RAEng) – Written evidence

Aston University	20	20	15	15	10	-5	-33.3
The University of the							
West of Scotland	5	5	5	5	0	-5	-100.0
The University of							
Aberdeen	5	5	5	5	0	-5	-100.0
Teesside University	10	10	10	10	5	-5	-50.0
The University of Bolton	5	5	10	5	5	-5	-50.0
The University of							
Westminster	15	15	15	15	10	-5	-33.3
The University of Hull	5	0	5	5	0	-5	-100.0
Loughborough University	15	20	20	25	15	-5	-25.0
The University of Sussex	5	0	10	10	5	-5	-50.0
Glyndŵr University	10	25	40	55	35	-5	-12.5
Southampton Solent							
University	90	80	110	120	105	-5	-4.5
Coventry University	85	100	140	145	135	-5	-3.6
University of Derby	5	20	5	5	5	0	0.0
The University of							
Nottingham	30	25	20	15	20	0	0.0
The University of Leeds	15	20	15	10	15	0	0.0
Imperial College London	25	20	20	15	20	0	0.0
Swansea Metropolitan							
University	5	5	0	0	0	0	-
The University of							
Bradford	10	5	5	5	5	0	0.0
The University of York	5	5	5	5	5	0	0.0
The University of Kent	5	5	5	5	5	0	0.0
The University of Essex	5	5	5	5	5	0	0.0
The University of							
Warwick	15	20	20	20	20	0	0.0
The University of							
Lancaster	10	20	20	20	20	0	0.0
Staffordshire University	5	5	10	5	10	0	0.0
The University of							
Sunderland	0	5	5	5	5	0	0.0
University of Durham	0	0	5	0	5	0	0.0
The University of							
Reading	5	0	0	0	0	0	-
The University of Salford	10	15	15	20	15	0	0.0
University of the West of							
England, Bristol	5	5	10	10	10	0	0.0
Cardiff University	30	30	30	40	30	0	0.0
University of Glamorgan	15	15	25	25	25	0	0.0
The University of							
Dundee	5	0	10	10	10	0	0.0
Bangor University	0	5	0	5	0	0	-
The University of Exeter	0	0	0	5	0	0	-
London South Bank							
University	10	15	10	10	15	5	50.0

## Royal Academy of Engineering (RAEng) – Written evidence

The University of Northampton	5	15	10	10	15	5	50.0
Edinburgh Napier University	20	10	5	5	10	5	100.0
The Manchester Metropolitan University	10	10	5	5	10	5	100.0
The University of Glasgow	10	10	5	10	10	5	100.0
Heriot-Watt University	5	5	0	5	5	5	-
The University of Surrey	15	20	25	25	30	5	20.0
The University of Bath	15	20	20	25	25	5	25.0
Sheffield Hallam University	5	10	10	15	15	5	50.0
The University of Birmingham	5	10	10	15	15	5	50.0
The University of Huddersfield	5	5	5	10	10	5	100.0
Oxford Brookes University	5	5	10	15	15	5	50.0
The University of Southampton	15	25	35	45	40	5	14.3
Liverpool John Moores University	120	65	115	100	120	5	4.3
The University of Wales, Newport	0	0	0	10	5	5	-
Middlesex University	0	0	0	5	5	5	-
Anglia Ruskin University	40	15	5	5	15	10	200.0
The University of Plymouth	5	5	5	5	15	10	200.0
University College London	5	10	10	15	20	10	100.0
The University of Edinburgh	0	5	5	10	15	10	200.0
The University of Manchester	55	75	70	85	80	10	14.3
The University of Newcastle-upon-Tyne	10	10	15	20	25	10	66.7
The University of Cambridge	5	0	5	10	15	10	200.0
Swansea University	10	10	10	25	20	10	100.0
University of Bedfordshire	0	0	5	15	15	10	200.0
The Queen's University of Belfast	5	5	0	5	10	10	-
The University of Sheffield	30	30	35	45	50	15	42.9
University of the Highlands and Islands	35	55	80	130	100	20	25.0
The University of Bristol	10	10	10	30	35	25	250.0



**Table A2:2 Number of Undergraduate Chinese students in engineering higher education – 2008/9 to 2012/13**

The table is sorted by largest negative 3 year change (2010/11 to 2012/13)

	2008/0 9	2009/1 0	2010/1 1	2011/1 2	2012/1 3	3 yr change abs	3 yr change %
<b>Total</b>	<b>2980</b>	<b>3400</b>	<b>3995</b>	<b>4225</b>	<b>4505</b>	<b>510</b>	<b>12.8</b>
Birmingham City University	205	180	165	135	85	-80	-48.5
The University of Central Lancashire	185	110	135	90	75	-60	-44.4
The University of Bradford	55	50	60	40	20	-40	-66.7
Queen Mary University of London	45	65	85	70	55	-30	-35.3
The University of Strathclyde	150	230	240	205	210	-30	-12.5
The University of Essex	25	50	30	5	5	-25	-83.3
King's College London	30	30	15	5	0	-15	-100.0
The Manchester Metropolitan University	35	25	20	5	5	-15	-75.0
The City University	70	60	35	30	20	-15	-42.9
Aston University	35	35	35	30	20	-15	-42.9
Cardiff University	35	55	80	75	65	-15	-18.8
The University of Northumbria at Newcastle	130	140	145	140	130	-15	-10.3
Kingston University	10	10	10	5	0	-10	-100.0
The University of Birmingham	130	155	215	210	205	-10	-4.7
The University of the West of Scotland	5	5	5	0	0	-5	-100.0
The Nottingham Trent University	0	5	5	0	0	-5	-100.0
Teesside University	0	10	10	5	5	-5	-50.0
The University of Greenwich	0	5	10	10	5	-5	-50.0
The University of Bolton	20	20	20	10	15	-5	-25.0
The University of Sussex	35	40	45	40	40	-5	-11.1
University of Hertfordshire	35	55	60	45	55	-5	-8.3
Loughborough University	55	40	35	35	35	0	0.0
University of Glamorgan	15	15	10	10	10	0	0.0
Liverpool John Moores University	30	35	30	60	30	0	0.0
Heriot-Watt University	10	10	10	10	10	0	0.0
The University of Brighton	5	5	5	5	5	0	0.0
The University of Reading	5	5	5	5	5	0	0.0
University of Durham	5	5	5	5	5	0	0.0
The University of Bath	80	100	135	135	135	0	0.0
The University of Southampton	45	65	80	80	80	0	0.0
The University of Huddersfield	20	25	50	50	50	0	0.0

# Royal Academy of Engineering (RAEng) – Written evidence

The University of Hull	5	10	15	20	15	0	0.0
Edinburgh Napier University	0	5	25	30	25	0	0.0
The University of Northampton	0	5	10	5	10	0	0.0
Anglia Ruskin University	0	10	5	5	5	0	0.0
The University of Kent	0	5	5	10	5	0	0.0
Glyndŵr University	0	5	5	5	5	0	0.0
The University of Aberdeen	0	0	5	5	5	0	0.0
Swansea Metropolitan University	5	0	0	10	0	0	
Staffordshire University	0	0	0	5	0	0	
The University of East London	0	5	0	0	0	0	
Imperial College London	305	280	305	315	310	5	1.6
The University of Cambridge	100	100	105	105	110	5	4.8
The University of Leeds	25	45	55	55	60	5	9.1
The University of Newcastle-upon-Tyne	15	25	40	40	45	5	12.5
The University of Salford	20	10	10	15	15	5	50.0
The University of Glasgow	10	10	10	15	15	5	50.0
Brunel University	5	5	10	15	15	5	50.0
The University of Portsmouth	5	10	5	5	10	5	100.0
The University of Sunderland	5	5	5	10	10	5	100.0
London South Bank University	5	5	5	5	10	5	100.0
University of the West of England, Bristol	0	0	5	10	10	5	100.0
The University of Wolverhampton	0	0	5	5	10	5	100.0
Oxford Brookes University	5	0	0	5	5	5	
De Montfort University	0	5	0	5	5	5	
Glasgow Caledonian University	0	5	0	0	5	5	
University of Bedfordshire	0	0	0	5	5	5	
Southampton Solent University	0	0	0	0	5	5	
The University of Wales, Newport	0	0	0	0	5	5	
The University of Warwick	40	40	50	55	60	10	20.0
The University of Exeter	5	5	5	10	15	10	200.0
The University of Lancaster	0	0	0	5	10	10	
The University of Plymouth	0	0	0	5	10	10	
The University of Lincoln	0	0	0	0	10	10	
University of Wales Trinity Saint David	0	0	0	0	10	10	
The University of Dundee	0	0	55	70	70	15	27.3
The University of Surrey	15	25	30	45	45	15	50.0

## Royal Academy of Engineering (RAEng) – Written evidence

The University of York	15	15	15	25	30	15	100.0
The University of Oxford	55	55	45	55	65	20	44.4
The University of Bristol	115	155	170	185	195	25	14.7
The Queen's University of Belfast	25	25	35	35	60	25	71.4
The University of Leicester	10	15	15	40	40	25	166.7
Coventry University	40	55	50	60	80	30	60.0
Sheffield Hallam University	5	10	15	20	45	30	200.0
The University of Edinburgh	45	60	70	85	105	35	50.0
The University of Manchester	180	230	255	265	305	50	19.6
Swansea University	30	25	30	55	80	50	166.7
The University of Sheffield	160	200	245	265	305	60	24.5
University College London	75	90	130	155	190	60	46.2
The University of Nottingham	70	55	125	235	265	140	112.0
The University of Liverpool	80	150	235	300	410	175	74.5

**Table A2:3 Number of Undergraduate Indian students in Computer Science higher education – 2008/9 to 2012/13**

The table is sorted by largest negative 3 year change (2010/11 to 2012/13)

	2008/09	2009/10	2010/11	2011/12	2012/13	3 yr change abs	3 yr change %
<b>Total</b>	<b>440</b>	<b>540</b>	<b>710</b>	<b>560</b>	<b>450</b>	<b>270</b>	<b>61.4</b>
University of Wales Trinity Saint David	30	40	75	15	10	-65	150.0
The University of East London	35	60	80	55	15	-65	128.6
Teesside University	15	15	55	30	5	-50	266.7
The University of Wolverhampton	30	40	40	20	10	-30	33.3
Middlesex University	40	60	70	65	40	-30	75.0
London Metropolitan University	5	15	25	20	5	-20	400.0
The University of Lancaster	15	25	25	15	15	-10	66.7
Kingston University	10	5	10	5	0	-10	0.0
University of the West of England, Bristol	0	5	10	5	0	-10	-
Sheffield Hallam University	5	5	10	10	0	-10	100.0
Liverpool Hope University	5	5	5	0	0	-5	0.0
The Robert Gordon University	5	5	5	0	0	-5	0.0
Swansea University	0	5	5	0	0	-5	-
University of Hertfordshire	10	15	10	10	5	-5	0.0
Coventry University	10	10	10	5	5	-5	0.0
The University of Northumbria at Newcastle	10	10	10	5	5	-5	0.0
The University of Bradford	5	5	5	5	0	-5	0.0
University of Glamorgan	5	5	5	5	0	-5	0.0
The University of Birmingham	0	5	5	5	0	-5	-
Birmingham City University	0	0	5	0	0	-5	-
Southampton Solent University	0	0	5	0	0	-5	-
The University of Portsmouth	0	0	5	0	0	-5	-
University of the Highlands and Islands	0	0	5	0	0	-5	-
University of Abertay Dundee	5	0	5	5	0	-5	0.0
Brunel University	5	10	15	15	10	-5	200.0
Staffordshire University	15	15	5	5	5	0	-66.7
Aston University	15	10	10	5	10	0	-33.3
De Montfort University	5	10	5	5	5	0	0.0
Edinburgh Napier University	5	5	0	0	0	0	-100.0
Queen Mary University of London	5	5	0	0	0	0	-100.0
The University of Northampton	10	5	5	5	5	0	-50.0
The University of Warwick	10	5	5	5	5	0	-50.0
Glyndŵr University	5	5	5	5	5	0	0.0
The Nottingham Trent University	5	5	5	5	5	0	0.0
The University of Edinburgh	5	5	5	5	5	0	0.0
The University of Leicester	5	5	5	5	5	0	0.0
The University of Surrey	5	5	5	5	5	0	0.0
The University of Sheffield	0	5	5	5	5	0	-

# Royal Academy of Engineering (RAEng) – Written evidence

Bournemouth University	0	0	5	0	5	0	-
King's College London	0	0	5	0	5	0	-
The University of Essex	0	0	5	0	5	0	-
Cardiff University	5	5	0	5	0	0	-100.0
Glasgow Caledonian University	5	0	0	0	0	0	-100.0
The Manchester Metropolitan University	5	0	0	0	0	0	-100.0
The University of Central Lancashire	5	0	0	0	0	0	-100.0
The University of Dundee	5	0	0	0	0	0	-100.0
The University of Reading	5	0	0	0	0	0	-100.0
The City University	5	0	5	5	5	0	0.0
The University of Westminster	5	5	10	10	10	0	100.0
The University of West London	5	10	20	15	20	0	300.0
University of Ulster	0	0	5	5	5	0	-
Liverpool John Moores University	5	0	0	5	0	0	-100.0
Buckinghamshire New University	0	0	0	5	0	0	-
Oxford Brookes University	0	0	0	5	0	0	-
University of Bedfordshire	10	20	35	40	35	0	250.0
The University of Sunderland	5	5	0	0	5	5	-100.0
Anglia Ruskin University	0	0	0	0	5	5	-
Leeds Metropolitan University	0	0	0	0	5	5	-
The University of Cambridge	0	0	0	0	5	5	-
The University of Kent	0	0	0	0	5	5	-
The University of Liverpool	0	0	0	0	5	5	-
The University of the West of Scotland	0	0	0	0	5	5	-
University of Chester	0	0	0	0	5	5	-
The University of Southampton	5	5	10	10	15	5	100.0
Imperial College London	5	5	5	10	10	5	0.0
The University of Newcastle-upon-Tyne	0	5	5	10	10	5	-
The University of Bristol	0	0	0	5	5	5	-
The University of York	0	0	0	5	5	5	-
University College London	0	0	0	5	5	5	-
The University of Manchester	10	15	10	20	20	10	0.0
Cardiff Metropolitan University	0	0	0	0	15	15	-
The University of Greenwich	20	35	30	50	50	20	50.0

**Table A2:4 Number of Undergraduate Chinese students in Computer Science higher education – 2008/9 to 2012/13**

The table is sorted by largest negative 3 year change (2010/11 to 2012/13)

	2008/09	2009/10	2010/11	2011/12	2012/13	3 yr change abs	3 yr change %
<b>Total</b>	<b>940</b>	<b>1015</b>	<b>995</b>	<b>1085</b>	<b>930</b>	<b>55</b>	<b>5.9</b>
The University of Central Lancashire	85	50	65	35	10	-55	-23.5
Middlesex University	20	75	40	25	10	-30	100.0
Coventry University	15	40	40	30	15	-25	166.7
The University of Portsmouth	10	30	35	20	10	-25	250.0
The University of Nottingham	70	85	75	65	55	-20	7.1
Edinburgh Napier University	20	20	20	15	10	-10	0.0
University of Ulster	25	20	25	25	15	-10	0.0
University of Hertfordshire	25	35	20	10	10	-10	-20.0
The University of Bradford	10	15	15	15	5	-10	50.0
Imperial College London	35	30	35	35	30	-5	0.0
King's College London	15	15	15	15	10	-5	0.0
Loughborough University	20	10	10	5	5	-5	-50.0
Glyndŵr University	10	15	5	5	0	-5	-50.0
Liverpool John Moores University	5	5	5	5	0	-5	0.0
London South Bank University	5	5	5	5	0	-5	0.0
London School of Economics	0	0	5	0	0	-5	#DIV/0!
The University of Northumbria at Newcastle	45	70	40	40	35	-5	-11.1
The University of Manchester	30	35	30	30	25	-5	0.0
Royal Holloway and Bedford New College	15	15	20	20	15	-5	33.3
The University of Warwick	5	10	15	15	10	-5	200.0
Staffordshire University	15	15	10	5	5	-5	-33.3
The City University	10	10	10	10	5	-5	0.0
The University of Cambridge	10	10	10	5	5	-5	0.0
Queen Mary University of London	5	5	10	5	5	-5	100.0
The University of East London	10	10	5	5	0	-5	-50.0
The University of Plymouth	15	5	5	5	0	-5	-66.7
Swansea Metropolitan University	15	5	5	0	0	-5	-66.7
The University of Kent	10	5	5	5	0	-5	-50.0
The University of the West of Scotland	10	10	5	0	0	-5	-50.0
The University of York	10	5	5	5	0	-5	-50.0
The Manchester Metropolitan University	5	5	5	0	0	-5	0.0
Anglia Ruskin University	5	10	5	5	5	0	0.0
Aston University	5	5	5	5	5	0	0.0
Brunel University	5	5	5	5	5	0	0.0
Bangor University	15	5	0	0	0	0	-100.0
Heriot-Watt University	5	0	5	5	5	0	0.0

# Royal Academy of Engineering (RAEng) – Written evidence

Kingston University	5	5	0	0	0	0	-100.0
London Metropolitan University	0	5	0	0	0	0	
Teesside University	5	10	30	45	30	0	500.0
The University of Essex	15	10	10	15	10	0	-33.3
The University of Leicester	0	5	10	10	10	0	
Oxford Brookes University	5	5	5	5	5	0	0.0
The University of Edinburgh	5	5	5	5	5	0	0.0
The University of Lancaster	5	0	5	10	5	0	0.0
The University of Oxford	5	5	5	5	5	0	0.0
The University of Salford	5	5	5	5	5	0	0.0
University of Abertay Dundee	0	5	5	10	5	0	
The University of Reading	5	5	5	0	5	0	0.0
The University of St Andrews	0	0	5	5	5	0	
University of Wales Trinity Saint							
David	0	5	5	0	5	0	
University of Glamorgan	5	0	0	5	0	0	-100.0
Roehampton University	5	0	0	0	0	0	-100.0
The Queen's University of Belfast	5	0	0	0	0	0	-100.0
The University of Bolton	5	0	0	0	0	0	-100.0
The University of Worcester	0	0	0	5	0	0	
De Montfort University	5	5	5	5	10	5	0.0
Aberystwyth University	5	5	0	5	5	5	-100.0
Cardiff University	5	0	0	5	5	5	-100.0
Bournemouth University	0	0	0	0	5	5	
Cardiff Metropolitan University	0	0	0	0	5	5	
Glasgow Caledonian University	0	0	0	0	5	5	
The University of Sunderland	15	20	10	20	15	5	-33.3
The University of Southampton	10	10	10	20	15	5	0.0
The University of East Anglia	10	15	10	10	15	5	0.0
The University of Bristol	5	5	10	15	15	5	100.0
The University of Greenwich	10	10	5	15	10	5	-50.0
The University of Hull	15	10	5	5	10	5	-66.7
The University of Newcastle-							
upon-Tyne	5	5	10	10	15	5	100.0
The University of Birmingham	10	5	5	10	10	5	-50.0
Swansea University	5	5	5	10	10	5	0.0
The University of Northampton	5	5	5	5	10	5	0.0
The University of Sussex	5	5	5	5	10	5	0.0
The University of Dundee	0	0	5	10	10	5	
The University of Leeds	5	5	0	5	5	5	-100.0
The University of Huddersfield	5	0	0	5	5	5	-100.0
The University of							
Wolverhampton	5	5	0	0	5	5	-100.0
University of Gloucestershire	5	0	0	5	5	5	-100.0
The University of Lincoln	0	0	0	0	5	5	
Birmingham City University	25	30	20	25	30	10	-20.0
The University of Sheffield	15	20	35	35	45	10	133.3
The University of Surrey	5	5	25	50	35	10	400.0
University College London	15	10	15	20	25	10	0.0
University of Bedfordshire	5	5	5	20	15	10	0.0
The University of Bath	10	10	5	5	15	10	-50.0
Sheffield Hallam University	5	5	5	5	15	10	0.0

# Royal Academy of Engineering (RAEng) – Written evidence

The Nottingham Trent University	15	5	0	5	10	10	-100.0
The University of Keele	0	0	0	10	10	10	
University of the West of							
England, Bristol	0	0	0	5	15	15	
The University of Liverpool	25	50	85	135	105	20	240.0



## Royal Society of Chemistry (RSC) – Written evidence

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.<sup>121,122</sup> 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 overseas are vital to and welcome in the UK and that only non-genuine students are being excluded.**<sup>123</sup> **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 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

<sup>121</sup> <http://www.bis.gov.uk/assets/biscore/higher-education/docs/e/11-980-estimating-value-of-education-exports.pdf>

<sup>122</sup> <http://www.centreforum.org/assets/pubs/migration-a-liberal-challenge.pdf>

<sup>123</sup> [http://www.rsc.org/ScienceAndTechnology/Policy/EducationPolicy/Immigration\\_Chemistry.asp](http://www.rsc.org/ScienceAndTechnology/Policy/EducationPolicy/Immigration_Chemistry.asp)

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.<sup>124</sup>

- 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 Council<sup>4</sup> 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

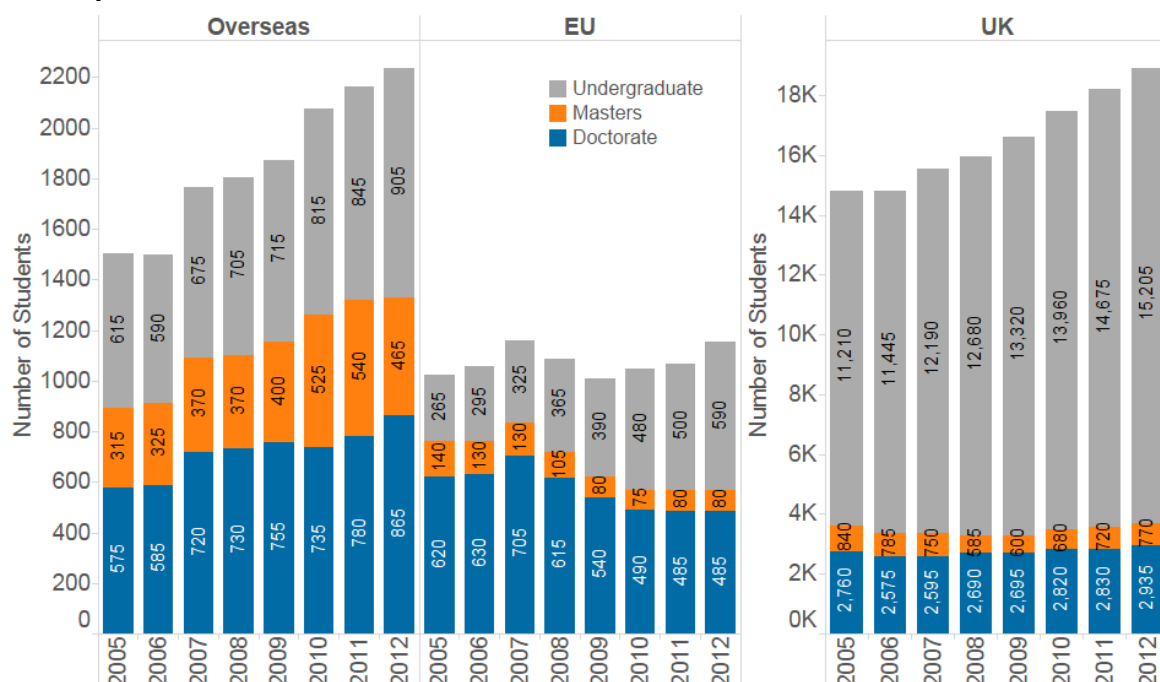
It is generally felt that, for students, the problem with the new immigration policy is primarily that it is very difficult to navigate the system and understand what is required when applying for a student visa. Many universities stated that they did not have sufficient resources to help staff understand 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.**

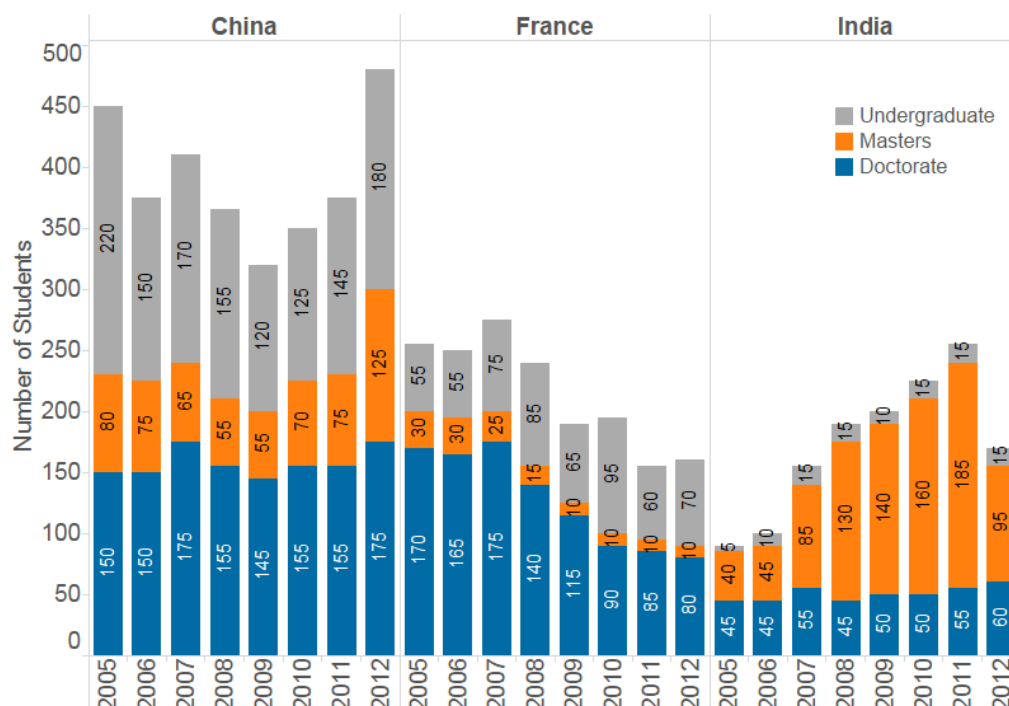
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<sup>124</sup> [http://www.britishcouncil.org/sites/britishcouncil.uk2/files/understanding\\_india\\_report.pdf](http://www.britishcouncil.org/sites/britishcouncil.uk2/files/understanding_india_report.pdf)

**Figure 2 Domicile (overseas, EU and UK) of all chemistry students at UK universities for each of the years 2004/05-2011/12<sup>125</sup>**



**Figure 3 Total chemistry student numbers at UK universities by top three countries of origin, 2004/05-2011/12<sup>5</sup>**



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<sup>125</sup> Higher Education Statistics Agency, [http://www.hesa.ac.uk/component/option.com\\_pubs/Itemid,122/](http://www.hesa.ac.uk/component/option.com_pubs/Itemid,122/)

## Russell Group – Written evidence

### 1. Summary

- If we are to maintain our place in the premier league of global higher education, it is crucial our visa system continues to support the efforts of our leading universities to attract the very best students, academics and researchers from around the world.
- The provision of highly-skilled STEM graduates and postgraduates is vitally important to the prosperity of the UK, helping to generate innovation and new technologies, and to drive future economic growth. Russell Group universities play a vital role, training around 30% of the UK's science and engineering graduates and more than 80% of UK graduates in medicine and dentistry.
- International STEM student numbers at Russell Group universities rose by 4% in 2012-13, with further increases predicted for 2013-14. This demonstrates the continuing demand for the high-quality teaching and research experience that our world-leading universities provide. By producing an increasing number of international STEM graduates each year, Russell Group universities are making an extremely valuable contribution to the UK economy.
- Meanwhile, international STEM student numbers across UK universities as a whole have declined for two consecutive years, by 10% in total between 2010-11 and 2012-13, and by 15% at postgraduate taught level.
- Although international STEM student numbers at Russell Group universities have continued to increase, the overall numbers mask differences between individual institutions. International STEM student numbers fell across several Russell Group institutions in 2012-13, and by 21% at one institution. We are concerned about possible future declines, particularly as further restrictions to immigration are introduced.
- The Government must make sure its immigration policies facilitate the UK's international competitiveness in higher education in order to maximise potential for growth. Provisions affecting international students and staff contained in the Immigration Bill are unhelpful in this regard.
- In order to signal that the UK's doors are fully open to genuine international students, including STEM students, the Government should:
  - Remove students from the proposed healthcare levy and reconsider proposals to introduce landlord checks of tenants' immigration status
  - Introduce a longer post-study work period
  - Reduce the cost of a student visa to ensure parity with key competitor markets
  - Remove students from the net migration target
- In addition, the Government should prioritise removing caps on international student numbers in medicine and dentistry. This would help to drive economic growth, boost the UK's overseas influence, provide security for universities and create a pool of UK-trained healthcare professionals the NHS could call on if needed to meet future demand.
- Alongside welcoming the best and brightest international STEM students, the Government must ensure that STEM provision is sustainable and has sufficient funding. This is particularly important for the UK's world-class research-intensive universities who produce such a high proportion of STEM graduates.

## 2. Introduction

- 2.1 The Russell Group's leading universities are global players, engaging in world-class research and education in many different countries. Our track record in attracting the most talented international staff and students has made a very important contribution to the considerable intellectual and financial success of UK higher education to date.
- 2.2 Higher education is an important growth sector for the UK, making a significant positive contribution to the economy in its own right and underpinning growth in every other sector through its education, research and innovation activities. It is one of this country's most successful export industries and is estimated to contribute more than £10 billion a year in overseas earnings – £3.9bn in tuition fees and £6.3bn in living expenses per annum alone.<sup>126</sup>
- 2.3 As a conservative estimate, international students at Russell Group universities generate at least £4 billion per annum for the UK. In Sheffield alone international students pump £120 million into the local economy every year.<sup>127</sup>
- 2.4 Russell Group universities are highly successful in attracting the brightest students and most talented academics and researchers from around the world:
- Although Russell Group universities have a 24% share of the total number of students in the UK, they have a 38% share of the total number of non-EU students, and a 41% share of non-EU postgraduate students.<sup>128</sup>
  - The proportion of non-UK nationality academic staff is around 33% at Russell Group universities compared to an average of 19% for all UK HEIs.<sup>129</sup>
- 2.5 **If we are to maintain our place in the premier league of global higher education, it is crucial our visa system continues to support the efforts of our leading universities to attract the very best students, academics and researchers from around the world.**
- 2.6 We welcome the opportunity to contribute evidence to the inquiry into international STEM students from the Lords Select Committee on Science and Technology. It is appropriate for the Committee to consider the extent to which changes to the immigration regime have impacted on the international competitiveness of UK universities in general, and the recruitment of international STEM students in particular. The inquiry is timely as the Immigration Bill currently passing through the House of Lords aims to introduce regulations which are likely to have a further negative impact on the attractiveness of the UK to international students.
- 2.7 It is widely acknowledged that the provision of STEM graduates is critical to industry in the UK, and will help to rebalance the economy. Various estimates have been made of the increasing demand for STEM skills in the future. Engineering UK analysis suggests that double the number of engineering graduates and apprentices will be needed by 2020 to meet demand, for example.<sup>130</sup> Alongside encouraging more UK students into STEM subjects, the recruitment of international students, and the ability of those students to fill highly skilled jobs in the UK after graduation, will be imperative to meeting that demand. But these international students are, by their very nature, highly mobile; we face stiff competition to attract them to the UK and the Government should do all it can to ensure the UK visa and immigration system is both competitive and welcoming, while continuing to tackle abuse.

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<sup>126</sup> Data for 2011/12, BIS, 'International Education: Global Growth and Prosperity', (2013)

<sup>127</sup> 'The Economic Costs and Benefits of International Students: A report for the University of Sheffield', (2013)

<sup>128</sup> HESA data 2012-13

<sup>129</sup> HESA data 2011-12

<sup>130</sup> Engineering UK, 'The State of Engineering' (2014)

**2.8 The provision of highly-skilled STEM graduates and postgraduates is vitally important to the prosperity of the UK, helping to generate innovation and new technologies, and to drive future economic growth. Russell Group universities play a vital role, training around 30% of the UK's science and engineering graduates and more than 80% of UK graduates in medicine and dentistry.**

### 3. The recruitment of international STEM students

3.1 International STEM students currently make up a significant proportion of total STEM students in the UK. Across the sector as a whole, international students make up 13% of first year students studying STEM subjects, and at Russell Group universities, the figure is 24%, rising to 41% for postgraduate taught students.<sup>131</sup>

3.2 Russell Group universities attract a far higher proportion of international STEM students, relative to their share of overall student population, than other UK HEIs. Of international STEM students in the UK, 48% are studying at Russell Group universities.<sup>132</sup>

3.3 The below table outlines recent trends in first year international STEM student numbers for the UK HE sector as a whole and for the Russell Group broken down by subject and level of study:

3.4

Latest data available from HESA, first year only <sup>133</sup>	2012-13		% change 2011-12 to 2012-13		% change 2010-11 to 2011-12	
	Whole sector	Russell Group	Whole sector	Russell Group	Whole sector	Russell Group
Medicine & dentistry	3,025	2,395	-6%	-6%	5%	7%
Subjects allied to medicine	6,200	1,950	-12%	8%	-16%	9%
Biological sciences	5,140	2,305	0%	2%	3%	4%
Veterinary science	220	150	-23%	-23%	14%	8%
Agriculture & related subjects	795	250	-5%	-19%	7%	29%
Physical sciences	4,170	2,285	5%	5%	-1%	11%
Mathematical sciences	3,050	2,255	7%	9%	9%	15%
Computer science	6,765	2,020	-11%	0%	-25%	-7%
Engineering & technology	19,165	9,745	0%	4%	-7%	5%
Architecture, building & planning	4,375	2,135	8%	18%	1%	21%
<b>Total (all STEM subjects)</b>	<b>52,905</b>	<b>25,490</b>	<b>-2%</b>	<b>4%</b>	<b>-8%</b>	<b>7%</b>

<sup>131</sup> HESA 2012-13. Definition of STEM subjects used is the same as that used in the Committee's 2012 report on STEM: JACS subjects Medicine & dentistry, Subjects allied to medicine, Biological sciences, Veterinary science, Agriculture & related subjects, Physical sciences, Mathematical sciences, Computer science, Engineering & technology, Architecture, building & planning.

<sup>132</sup> HESA data 2012-13

<sup>133</sup> HESA data for first year non-EU domiciled enrolments.

<b>Postgraduate (research)</b>	6,325	4,090	6%	7%	3%	8%
<b>Postgraduate (taught)</b>	24,980	12,075	-3%	1%	-13%	6%
<b>Undergraduate</b>	21,605	9,315	-4%	7%	-4%	7%

3.5 In 2012-13, there were 25,490 first year international STEM students in total at Russell Group universities, a 4% rise compared to the previous year; by comparison international STEM student numbers declined by 2% across HEIs in the UK as a whole.

3.6 The total number of international STEM students starting at Russell Group universities in 2013-14 is estimated to have risen by approximately 9% compared to 2012-13.<sup>134</sup> Broken down by level, the highest rate of growth is estimated to be for postgraduate taught students, rising by 12%, followed by undergraduate students, rising by 10%. Postgraduate research student numbers are estimated to fall by 5%.

3.7 We estimate that international enrolments at Russell Group universities in 2013-14 have increased in the following subject areas compared to the previous year: medicine and dentistry, biological sciences, physical sciences, mathematical sciences, computer science, engineering and technology, and architecture, building and planning.

**3.8 International STEM student numbers at Russell Group universities rose by 4% in 2012-13, with further increases predicted for 2013-14. This demonstrates the continuing demand for the high-quality teaching and research experience that our world-leading universities provide. By producing an increasing number of international STEM graduates each year, Russell Group universities are making an extremely valuable contribution to the UK economy.**

**3.9 Meanwhile, international STEM student numbers across UK universities as a whole have declined for two consecutive years, by 10% in total between 2010-11 and 2012-13, and by 15% at postgraduate taught level.**

3.10 The decline in STEM numbers will have a negative impact on some universities and some courses in particular. There has been a particular decline in subjects allied to medicine, computer science, and engineering and technology.

3.11 Falling international student enrolments present a particular problem for disciplines such as computer science and engineering and technology, as international students represent a high proportion of enrolments.

**3.12 Although international STEM student numbers at Russell Group universities have continued to increase, the overall numbers mask differences between individual institutions. International STEM student numbers fell across several Russell Group institutions in 2012-13, and by 21% at one institution. We are concerned about possible future declines, particularly as further restrictions to immigration are introduced.**

#### 4. The impact of changes to the immigration regime

4.1 The report of the Committee into STEM subjects in 2012 touched on the concern that changes to the immigration rules, for example, the closure of the post-study work route,

<sup>134</sup> Estimate is based on an aggregated sample of 13 Russell Group universities providing enrolments for the year so far. Universities may also have intentionally implemented changes in provision so this should be kept in mind when interpreting trends.

could affect the competitiveness of the UK in attracting international students to study here.<sup>135</sup>

- 4.2 As outlined above, international STEM student numbers at Russell Group universities increased by 4% in 2012-13, while numbers across UK HEIs as a whole declined. This pattern is replicated for international student numbers across all disciplines. Whilst international student numbers across all UK HEIs declined by 1% for the first time in 2012-13, they increased by 4.6% at Russell Group universities.<sup>136</sup>
- 4.3 However, growth in international student numbers at Russell Group universities has stalled compared to previous years and numbers have fallen from some countries.
- a) In 2012-13, new intakes of postgraduate taught students at Russell Group universities declined from Canada, India, Nigeria, Pakistan, Turkey and the US.
  - b) New intakes of postgraduate taught students from India, one of the largest international student groups, dropped by 21% at Russell Group universities in 2012-13.
  - c) By contrast, Indian postgraduate student numbers to the US increased by 40% in 2013.<sup>137</sup> Visas granted to Indian students across all levels in Australia have risen by 22% in the last year following the introduction of a more open immigration policy and visas granted to Indian students in Canada rose by 8% in 2012.<sup>138</sup>
- 4.4 International education is a growing market and it is vital that the UK is able to take advantage of this. Between 2000 and 2011, the number of international students across the world more than doubled.<sup>139</sup>
- 4.5 BIS estimates it is likely international student numbers will increase by 15-20% over the next 5 years.<sup>140</sup> With international student numbers declining across the sector in 2012-13, the UK is not currently on track to meet that target.
- 4.6 The global market for international staff and students is highly sensitive to visa system changes. In order to take advantage of the opportunity to grow the UK's international education market share, we should follow the lead of competitor countries such as Australia and Canada, who have introduced more welcoming immigration policies in recent years. For example:
- a) In 2012, Australia introduced a package of reforms to streamline the visa process, easing assessment requirements and reducing processing times for visa applicants.
  - b) Under Canada's International Education Strategy, \$42 million will be invested over two years to ensure timely and efficient processing of student visas. Restrictions on work during study will also be eased.
- 4.7 There are a number of areas in which the UK's international competitiveness could be improved significantly through changes to immigration regulations. For example, international students value the opportunity to work in the country in which they studied after graduation for a number of reasons including to gain valuable experience of the business environment and culture before returning home. One of the reasons for the fall in

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<sup>135</sup> Lords Select Committee on Science and Technology, 'Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects' (2012)

<sup>136</sup> HESA 2012-13

<sup>137</sup> Council of Graduate Schools data (2013)

<sup>138</sup> Department for Immigration and Border Protection statistics (Australia); Citizenship and Immigration Canada statistics (Canada)

<sup>139</sup> OECD, 'Education at a glance' (2013)

<sup>140</sup> BIS, 'International Education: global growth and prosperity' (2013)



international student numbers from countries such as India is the reduction of the post-study work period from 2 years to 4 months.<sup>141</sup>

- 4.8 Currently, the UK has one of the shortest post-study work periods for international students among key English-speaking and European markets, with many offering 12 months to stay in the country post-graduation in order to find work, and the US offering 29 months for STEM graduates. See **Annex A** for a comparison of post-study work periods.
- 4.9 The cost of a basic student visa in the UK is also much higher than in many of our key competitor countries. The average cost of a student visa across nine of our top competitor countries is £145. The current cost of a Tier 4 student visa in the UK is more than twice as expensive at £298, and will be increased by 4% to £310 in April this year. See **Annex B** for a comparison of student visa fees in the UK and in our key competitor countries.
- 4.10 Both the comparatively high cost of a student visa in the UK, and the restrictive rules on post-study work, impact on the UK's international competitiveness, restricting our ability to take advantage of opportunities to grow international education.
- 4.11 Furthermore, the Immigration Bill currently being considered in the House of Lords seeks to introduce provisions which could lead to negative perceptions about the extent to which the UK welcomes international students and university staff, and therefore, affect the UK's international competitiveness. In particular:
- a) The proposed healthcare levy of £150 would mean that a prospective international student seeking to enter the UK for a 4-year course would be required to pay £944 up front, compared to £332 today – in other words, almost a 3-fold increase.<sup>142</sup> It would also increase the tax burden on international staff and students working part-time, as they will already be paying national insurance contributions but would have to pay the levy on top of this to access healthcare services.
  - b) The proposal to introduce compulsory checks to the immigration status of potential tenants by landlords could lead to international students and staff members, along with other non-EEA and indeed EU nationals, being subject to discrimination. Private landlords typically already insist on guarantors and/or 6 month's rent (or more) upfront before letting to international students and these proposals are likely to worsen the situation.
- 4.12 We welcome the fact that there is no cap on international student numbers. However, the fact that students are still included in the net migration target could lead to the perception that the UK is not 'open for business', affecting the UK's ability to compete effectively in the international education market.
- 4.13 **The Government must make sure its immigration policies facilitate the UK's international competitiveness in higher education in order to maximise potential for growth. Provisions affecting international students and staff contained in the Immigration Bill are unhelpful in this regard.**
- 4.14 **In order to signal that the UK's doors are fully open to genuine international students, including STEM students, the Government should:**
- **Remove students from the proposed healthcare levy and reconsider proposals to introduce landlord checks of tenants' immigration status**

<sup>141</sup> The period for which international students can remain in the UK on a Tier 4 student visa without having to switch to Tier 2

<sup>142</sup> Calculation is: Tier 4 visa fee in 2014/15 (£310) + health levy per year (4X£150) + police registration fee (£34); note that higher costs would also apply to any spouse or dependant accompanying the student as they would be liable for the full £200 health levy.

- **Introduce a longer post-study work period**
- **Reduce the cost of a student visa to ensure parity with key competitor markets**
- **Remove students from the net migration target**

## **5. Restrictions on international student numbers in medicine and dentistry**

- 5.1 Currently, the number of international students studying medicine and dentistry in the UK is restricted by tight caps imposed by the Department of Health, meaning that our universities cannot take advantage of overseas demand for UK courses in these disciplines.<sup>143</sup>
- 5.2 Removing, or at least lifting, these caps would provide security for universities, particularly given the recent cuts to home student intake. It would also drive economic growth through increased export earnings and boost the UK's overseas influence, exporting medical and dental knowledge and expertise to countries that need it.
- 5.3 For medical students, the change can be facilitated by moving the point of registration to the point of graduation, as recommended in the recent Shape of Training Review.<sup>144</sup> However, this will require primary legislation to change the 1950 Medical Act.
- 5.4 There are some other practicalities to address in making that change, but the Government could facilitate the move by putting forward a Health Bill or adding the proposal to a Cabinet Office deregulation Bill for the next session of Parliament. This would allow more flexibility to be introduced for the 2015-16 intake and would still leave a number of years for other issues around the point of registration to be resolved before that cohort graduates.
- 5.5 As long as there are sufficient financial safeguards in place to cover both educational, clinical training and health service costs then our world-class universities should not be restricted in the number of international medical and dental students they can take.
- 5.6 The Government should prioritise removing caps on international student numbers in medicine and dentistry. This would help to drive economic growth, boost the UK's overseas influence, provide security for universities and create a pool of UK-trained healthcare professionals the NHS could call on if needed to meet future demand.**

## **6. The cost of STEM subject provision**

- 6.1 In our previous submission to the inquiry on STEM subjects, the Russell Group highlighted the cost of teaching subjects such as medicine, engineering, chemistry and physics, which are so important to the future success of the UK's economy. Teaching costs in these subjects are significantly higher than others because of the requirement for expensive laboratories, consumables and equipment and additional costs associated with training and supervision of students in their use. There are also particular cost pressures associated with maintaining and up-grading facilities such provision in world-class research-intensive universities requires.
- 6.2 Given the overall decline in international STEM student numbers across UK HEIs, the continued contribution of Russell Group universities in producing an increasing number of international STEM graduates, as well as a high proportion of home STEM graduates, is vital to the UK economy – and becoming even more critical with time.

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<sup>143</sup> International dental students are currently capped at 5% of a school's intake and international medical students at 7.5%.

<sup>144</sup> 'Securing the future of excellent patient care: Final report of the independent review led by Professor David Greenaway' (2013)

6.3 We welcome the commitment contained in Autumn Statement 2013 for extra funding of £185m over four years for teaching vital science subjects, starting in 2015-16. It is essential for a high proportion of this new money to be allocated for increased funding per student for existing STEM places. High quality provision of STEM subjects is extremely costly, as outlined above, and cannot be met by tuition fee income alone.

6.4 **Alongside welcoming the best and brightest international STEM students, the Government must ensure that STEM provision is sustainable and has sufficient funding. This is particularly important for the UK's world-class research-intensive universities who produce such a high proportion of STEM graduates.**

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#### Annex A - Comparison of post-study work periods in the UK and seven competitor countries<sup>145</sup>

	Length of time	Restrictions/benefits
<b>UK</b>	<b>4 months</b>	Graduates can seek employment and work on a full-time temporary basis subject to usual student employment restrictions e.g. cannot be self-employed.  PhD graduates can remain in the UK for 12 months under the Doctorate Extension Scheme with no restrictions on type of work. <sup>146</sup>
<b>Denmark</b>	<b>6 months</b> with an option to extend for a further 6 months once only.	During the 6 month period post-study, graduates can seek employment and work <u>up to 15 hours a week</u> , as well as full-time during the months of June, July and August.
<b>Ireland</b> (Graduate Employment Scheme)	<b>12 months</b>	Graduates can work <u>up to 40 hours a week</u> under student visa arrangements and/or seek employment and apply for further permission to remain.
<b>France</b>	<b>12 months</b>	Masters graduates or above can work in any salaried job for up to <u>60% of the official work week</u> .
<b>Germany</b>	<b>18 months</b>	No limit on number of hours that can be worked during this period.
<b>US</b> (Optional Practical Training)	<b>12 months/ 29 months for STEM graduates.</b>	Under Optional Practical Training, a graduate can undertake temporary work related to their major or course of study. Available to Bachelors, Masters

<sup>145</sup>This refers to the time period for which graduates can stay in the country in which they studied post-graduation in order to find work whilst still remaining **on a student visa**. UK graduates securing a graduate-level job (salary of £20,300+) can apply to stay on a Tier 2 visa.

Training)		graduates and above, with the option to undertake another 12 months following a further level of study.
<b>Canada</b> (Post-Graduation Work Permit Program)	<b>Between 8 months and 3 years</b> dependent on duration of course studied.	Must have studied on a programme longer than 8 months on a full time basis. Some restrictions for those who have received scholarship funding.
<b>Australia</b> (Graduate Work Stream and Post-Study Work Stream)	<b>Between 18 months and 4 years</b> dependent on visa stream and length of study.	Under the Graduate Work Stream, graduates with skills and qualifications that relate to an occupation on the Skilled Occupation List are granted a visa for 18 months.  Under the Post-Study Work Stream, a graduate must have studied for at least 2 years. The visa lasts for two to four years, depending on qualification obtained: 2 years for an undergraduate or postgraduate taught, 3 years for postgraduate research, 4 years for a doctorate.  Both visas allow travel, work and/or study.

#### Annex B – comparison of student visa fees in the UK and nine competitor countries

	<i>Cost of a basic international student visa<sup>147</sup></i>
Australia	£317 (AUS\$ 535)
<b>UK</b>	<b>£298 (with an increase to £310 in April 2014)</b>
US	£224 (Basic fee \$160 and SEVIS administration fee \$200)
Denmark	£188 (€224)
New Zealand	£141 (NZ\$270)
France	£132 (€99 <sup>148</sup> + €58 excise stamp fee)
Sweden	£96 (SEK 1,000)
Ireland	£84 (€100 multiple entry visa)
Canada	£74 (CAD\$125)
Germany	£50 (€60)

<sup>147</sup> Based on exchange rate on 6 November 2013

<sup>148</sup> The long stay student visa is renewable annually at a cost of €30.

## Science Council – Written evidence

### 1. The Science Council

- 1.1 The Science Council was established in 2004. It is an umbrella organisation of learned societies and professional bodies, and currently has 41 member organisations drawn from across science and its applications: a list of current member bodies is attached. In addition to providing a mechanism for the sector to work collectively, the Science Council develops and leads collaborative projects working with member bodies and the wider scientific community: examples include the Future Morph website<sup>149</sup> designed to provide young people with information about careers opportunities, and LMI analysis of the UK Science Workforce<sup>150</sup>.
- 1.2 The Science Council works to advance the professional practice of science and since 2004 has awarded the professional qualification of Chartered Scientist (CSci) with 15,000 individuals registered. A current key project is the development of new professional registers (Registered Scientist and Registered Science Technician), which aims to raise the profile, aspirations and retention of scientists at graduate and technician level.
- 1.3 Collectively our member bodies represent almost 500,000 individual members, including scientists, teachers and senior executives in industry, academia and the public sector.
- 1.4 In preparing this submission we have consulted member bodies to identify areas of common interest and the issues they raised form the content of this submission. In addition a number of member bodies will be responding individually to the inquiry. For clarification we understand the term ‘international student’ to mean all non-UK students.

### 2. The Science Council is concerned that current immigration policies risk destabilising the UK’s existing competitive advantage as a world-leader in science, and inhibiting the translation of science into technology for global markets.

- 2.1 Modern science is a global activity. The scale and immediacy of the issues the world faces, together with the pace of change in science and technology, and the interconnectivity of nations and markets, demands increasing interaction and cooperation between disciplines and between countries. The markets for technological innovation driven by science are global. With the support of governments and global businesses, scientists are working in international multi-disciplinary teams to address the major issues and opportunities, and to develop new technologies. The UK government has repeatedly stated its understanding that investment in science is globally competitive and has sought to establish the UK as a ‘great place to do science. This has included fostering the international co-operation necessary to expand scientific knowledge and attracting

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<sup>149</sup> [www.futuremorph.org](http://www.futuremorph.org)

<sup>150</sup> *The current and future UK science workforce* TBR, Sept. 2011 <http://www.sciencecouncil.org/content/science-workforce>

leading global businesses to locate research establishments in the UK and getting the right level of regulation. For example:

*“Indeed I am up for the challenge set by Brian Cox and others of making Britain the best place in the world to do science.” George Osborne, Royal Society, Nov 2012*<sup>151</sup>

*“We have achieved our ambition of being the best place in the world to do science.” David Willetts, Policy Exchange, Jan 2013*<sup>152</sup>

*“We are throwing everything we have at making the UK the place to invest and locate and work in life sciences.” David Cameron, Dementia Summit in Dec 2013*<sup>153</sup>

- 2.2 While the Science Council supports the UK government’s drive to eliminate illegal immigration, it is important to understand the unintended consequences these immigration policies are having on the potential of UK science and technology, by creating the impression that UK science is primarily for UK scientists and is not welcoming to those who wish to learn, train and develop their skills in the UK. Achieving the goal of establishing the UK as a great place to do science includes encouraging and facilitating the world’s brightest and best scientists to come to the UK, creating lifelong links with UK science that will form the basis of future interactions. International STEM students are thus a vital part of this ambition.
- 2.3 It is a concern within the science community that a decline in exposure to and interaction with international graduates will, in the long term be detrimental to UK STEM students’ ability to work abroad and work in international teams. UK STEM students’ lack of foreign languages is a particular concern as increasing numbers of leading global science and technology companies have their HQs located outside the UK. Science-based global companies need science and technology graduates with the ability to work in multi-cultural, multi-lingual teams with an understanding of different cultures and practices. Thus UK students’ exposure to working and living alongside international students is one way to increase their awareness of the globally competitive market for skills and in preparing them to operate in a global workforce.
- 2.4 While the UK government has been slow to promote the social and professional benefits of studying abroad to UK students, this is not true of other nations where a high percentage of top class students study abroad. Although uptake of the ERASMUS programme for example among UK students has increased recently, countries with comparable student numbers to the UK have markedly higher participation rates. Spain, France and Germany for example have two to three times the number of Erasmus students studying abroad than the UK.<sup>154</sup>

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<sup>151</sup> <https://www.gov.uk/government/speeches/speech-by-the-chancellor-of-the-exchequer-rt-hon-george-osborne-mp-to-the-royal-society>

<sup>152</sup> <http://www.policyexchange.org.uk/modevents/item/tomorrow-s-world-eight-great-technologies-with-david-willetts>

<sup>153</sup> <https://www.gov.uk/government/speeches/g8-dementia-summit-prime-ministers-speech>

<sup>154</sup> <http://www.britishcouncil.org/organisation/press/record-number-uk-students-go-europe-erasmus>

**3. The UK's economic success needs the skills of the home-grown UK workforce as well as highly skilled and talented individuals from across the world: this is particularly true for science-based industries.**

3.1 There is evidence indicating that highly skilled migrants make an important contribution to UK enterprise, innovation and economic growth.<sup>155</sup>

**The contribution of international STEM students to the UK**

**4. The UK's global reach and reputation for excellent science is underpinned by its increasing ability to attract the best international STEM students to its universities.**

- 4.1 Welcoming international students to the UK enables UK universities to project their quality on a global scale by developing and maintaining strong relationships across research and business with other countries, as well as supporting the UK's own research base. In 2011/12, for example there were 150,910 international STEM students in UK HE making up 34.6% of all international students that year<sup>156</sup>. Our world-class higher education sector is held in high esteem by students across the world, demonstrated by the fact that the reputation of UK universities is the most significant driver for international students to come to the UK.<sup>157</sup> This reputation is reinforced by 11 UK universities in the Times Higher Education World University Ranking top 100 and 31 in the top 200, second only to the USA.<sup>158</sup> The UK's popularity among international students is also shown in the UK's global share of the overseas student market, which in 2011/12 was 13% up from 12.8% in 2006.<sup>159</sup>
- 4.2 In addition to projecting the UK as an outward looking country, international students make a significant financial contribution to the UK higher education (HE) sector as well as bringing wider economic benefits. The Government estimates that in 2011/12 approximately £3.9 billion in tuition fees were paid to English higher education institutions (HEIs), and that in 2011/12 they contributed approximately £6.3 billion in non-tuition fee expenditure to the economy<sup>160</sup>. At the institutional level, a study for the University of Sheffield for example determined that international students would make a net total contribution to its Gross Domestic Product of £120 million in 2012/13.<sup>161</sup>
- 4.3 What is clear is that the UK has until now been a highly desirable destination for international students to come and study. The Government's own figures state that in 2012/13 there were 435,000 international students in publicly funded higher

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<sup>155</sup> <http://www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/research-skill/niesr-skilled.pdf?view=Binary>

<sup>156</sup> <http://www.ukcisa.org.uk/Info-for-universities-colleges--schools/Policy-research--statistics/Research--statistics/International-students-in-UK-HE/#International-student-numbers-by-subject-area-2011-12>

<sup>157</sup> [http://www.heacademy.ac.uk/assets/documents/postgraduate/PTES\\_Report\\_2013\\_Final.pdf](http://www.heacademy.ac.uk/assets/documents/postgraduate/PTES_Report_2013_Final.pdf) p.4

<sup>158</sup> <http://www.timeshighereducation.co.uk/world-university-rankings/2013-14/world-ranking>

<sup>159</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf)

<sup>160</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf)

<sup>161</sup> [http://www.shef.ac.uk/polopoly\\_fs/1.2590521/file/sheffield-international-students-report.pdf](http://www.shef.ac.uk/polopoly_fs/1.2590521/file/sheffield-international-students-report.pdf)

education institutions and 53,000 international students in alternative providers in the UK.<sup>162</sup>

- 5. The Science Council is concerned that the message that the UK is welcoming of international students is not being consistently applied across government departments. Despite the Prime Minister stating that there is “no cap on the number of genuine students coming from across the world to study in this country”<sup>163</sup>, announcements in other areas of government policy, such as the Home Office statement that the Immigration Bill is designed to “reduce the pull factors which encourage people to come to the UK”<sup>164</sup> sends a message to prospective overseas students that they are not welcome in the UK.**

- 5.1 The combination of a world-class higher education system and world-class science base provides the UK with a tremendous opportunity to take advantage of the rapid growth in tertiary education across the world, and to market itself as *the* prime destination for international STEM students. The British Council has estimated that the average growth in global tertiary education is 5% per annum, and that it will grow from 178 million to 199 million between 2011 and 2020 with much of the growth coming from developing countries.<sup>165</sup> The OECD also estimates that by 2020 there will be approximately 7 million internationally mobile students. The Department for Business, Innovation and Skills expect the UK’s share to increase stating that it is “*realistic for numbers of international students in HE in the UK to grow by 15-20% over the next 5 years*”<sup>166</sup>. Indeed, recently published UCAS data for the academic year 2012/13 has also show an increase of 9.6% in non-EU higher education applications and an increase of 4.9% in EU applicants.<sup>167</sup> Current perceptions about UK immigration policies risk destabilising this growth.
- 5.2 The House of Commons Business, Innovation and Skills Select Committee’s 2012 report on overseas students and net migration reported “*concerned to hear that the Government’s visa regime was having a negative impact on UK universities’ ability to attract Chinese students*”.<sup>168</sup>
- 5.3 The Institute for Measurement and Control (IMC) reported testimony from a student at City University London:

*“I have thoroughly enjoyed paying exorbitant fees while being treated like a criminal on bail whilst I was in the UK. Please be assured that I will strongly discourage any potential students from Asia to study in the UK for as long as you should choose to treat your highest paying customers like criminals”.*

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<sup>162</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229844/bis-13-1081-international-education-global-growth-and-prosperity.pdf)

<sup>163</sup> <http://www.parliament.uk/documents/commons-committees/business-innovation-and-skills/Reply%20from%20the%20PM%2020130308.pdf>

<sup>164</sup> <https://www.gov.uk/government/news/immigration-bill-laid-in-parliament>

<sup>165</sup>

[https://ihe.britishcouncil.org/sites/default/files/going\\_global/session\\_attachments/GG2012%2012.1%20Janet%20Ilieva.pdf](https://ihe.britishcouncil.org/sites/default/files/going_global/session_attachments/GG2012%2012.1%20Janet%20Ilieva.pdf)

<sup>166</sup> <http://www.oecd.org/edu/skills-beyond-school/educationataglance2011oecdindicators.htm>

<sup>167</sup> <http://www.ucas.com/news-events/news/2014/ucas-reports-4-cent-increase-number-applicants-higher-education>

<sup>168</sup> <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmbis/425/425.pdf>



And a senior Associate Dean of Postgraduate Studies reported:

*“Throughout my visits to India I have observed an overwhelming dissatisfaction by Indian students who considered the post-graduation one year visa as a major disincentive to come to the UK”.*

### **The potential impact on specialist STEM courses**

**6. The current immigration policies have had a number of unintended consequences, one of which is on the supply of postgraduate courses. The Science Council is concerned that combined with decisions to withdraw funding from many STEM higher education courses, the perception of current immigration policies threatens the sustainability of many postgraduate courses, thereby also restricting options for UK students and STEM based industries.**

6.1 There have been reductions in funding for UK postgraduate students in areas where there are already skills shortages. The decision by the Engineering and Physical Sciences Research Council to halt studentship funding in all disciplines except statistics and applied probability, and the decision by the Natural Environment Research Council to discontinue funding for nearly 400 full-time studentships or equivalent from 2012 are examples of where withdrawal of funding will have an impact on the long-term viability of postgraduate courses. The removal of public funding for postgraduate training will inevitably reduce the number of international STEM students coming to study in the UK, and reduce the ability of UK universities to fund a wide range of course choices to UK students. Combined with the impact of immigration on international STEM students, these short-term decisions will have long-term negative impact on the skill and knowledge acquisition of the UK science workforce as a whole, on strategically important research areas and on the ability of the UK to strengthen its research base and attract global talent.

6.2 In turn this increases the competition to recruit international STEM students from countries such as China and India. Last year, while there was an 8% increase in the number of study visas issued to Chinese students, there was a 24% drop in the number issued to Indian students<sup>169</sup>.

6.3 The Royal Society of Chemistry (RSC) reported that the UK's immigration policies have caused problems in the recruitment and retention of international students at some higher education institutions. One University has been forced to close an MSc programme in Molecular Biotechnology and one MRes programme in Bio-sensing Technology as they were aimed at the international market, particularly India. The same University is concerned that immigration policies threaten the continuation of its MSc Science Communication and MSc Advanced Forensic Analysis courses. It commented that:

*“The changes have also meant that some international partnerships with HEIs, especially in India, have been scrapped. These took much academic*

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<sup>169</sup> <https://www.gov.uk/government/publications/immigration-statistics-july-to-september-2013/immigration-statistics-july-to-september-2013>

*and admin staff time to set up, plus considerable costs for international visits, validation events etc - a complete waste of already limited resources”.*

- 6.4 The number of international STEM students pursuing postgraduate study in the UK has increased steadily over recent years, and the income and critical mass generated from this increase has been crucial for maintaining the viability of specialist courses across science and technology disciplines.
- 6.5 The importance of international postgraduate students to UK higher education has been previously highlighted by the House of Lords’ Select Committee inquiry into higher education in STEM subjects, which noted that within STEM subjects in 2009-10 13% of first degree qualifiers, 55% of Masters degree qualifiers and 42% of PhD qualifiers were from overseas<sup>170</sup>. The viability of postgraduate programmes at the Jodrell Bank Centre for Astrophysics is an example of an institution that is significantly dependent on the financial contribution of overseas students. Since 2007, although only 15.3% of their postgraduate students were registered as non-EU students, 45% of their income from postgraduate students came from those students.
- 6.6 There is a concern that UK postgraduate students do not possess the same level and quality of training that overseas students demonstrate with regard to high-level technical and practical skills. The skills deficit of UK postgraduates combined with the need for high-level STEM qualifications therefore increases the need for international STEM students to study and work in the UK.

#### **Failures in the current visa information and application system**

- 7. The Science Council does not wish to inhibit the government’s determination to deal with illegal immigration but it is concerned that the immigration application process lacks nuance to decide between those who seek to enter the UK illegally and genuine international students.**
- 7.1 Testimony from our members has shown that students from what the government might consider ‘high risk’ countries are less likely to be allocated visas than those from ‘low risk’ countries. Examples given include India, Pakistan, Iran Sudan, Nigeria and other parts of Africa. There is a concern that the UK is determining visa applications from international students more on the basis of the country they are from than for their personal attributes.
- 7.2 Since the introduction of Tier 4 visas as a ‘fast-track’ process for genuine students coming to study at trusted institutions, the Science Council understands that universities have been under substantial pressure from government to comply with their obligations as Tier 4 sponsors. As a result significant resources have been invested in Tier 4 compliance at the expense of investment in supporting international students and helping to make the process more transparent.
- 7.3 Across different HEIs, the advice, information and guidance available on immigration policies and the visa application process is mixed, poorly explained and inconsistent,

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<sup>170</sup> <http://www.parliament.uk/business/committees/committees-a-z/lords-select/science-and-technology-sub-committee-i/news/stem-report-published/>

and in some cases the web links held on universities websites to the UK Border Agency (UKBA) and Home Office are out of date.

- 7.4 Our members have further concerns that many employers are either not aware of or reluctant and confused about the current visa system and do not understand the possibilities of recruiting international graduates in the uncapped Tier 2 route. Our consultation revealed concerns that some HEIs felt that immigration rules for students have become overly prescriptive and in some cases our member bodies have had to highlight concerns to HEIs regarding the quality of their current information and guidance on student visas:

*“The frequency of the changes to the Tier 4 immigration rules, the contradiction between the Immigration Rules and Home Office Policy Guidance, and the reduction of staff within the Home Office has left us with a system which is confusing, messy and difficult to navigate. We see numerous visa refusals for fairly spurious reasons due to the inflexibility of the system and lack of discretion in casework decision-making”.*

- 7.5 The Geological Society passed on similar concerns from Plymouth University. Their International Students Office stated that changes to the immigration system since 2010, and in particular the post-study work visa, has disproportionately affected their international STEM student population specifically those from the Indian sub-continent. Traditionally Indian students finance their studies with an educational loan which would be repaid by them from income earned in the UK post-graduation. In contrast Chinese students, in the main fund their studies from savings.
- 7.6 The Physiological Society highlighted concerns from a university with which it has close ties:

*“The changes have made the current international students very angry, in terms of their monitoring. The implementation of the 'guidelines' on monitoring engagement is very different across the sector, and in some places is very draconian, and onerous on both student and academics. This is largely to make sure that the HEI is covered if they are investigated by what was UKBA as to their monitoring procedures, or so I'm led to believe. I think that this will filter back to newer students and will discourage them from considering the UK”.*

- 7.7 The Royal Astronomical Society (RAS) highlighted the case of an outstanding Senegalese student who wanted to study for a PhD with the Open University. The University had funding in place but wanted to invite her for interview before confirming her place. The UK consulate in Ghana that was handling the visa application insisted that she have £10,000 in a bank account before they would offer the visa. The University were willing to pay for her flight to the UK for the interview but her visa application for entering the UK was turned down 3 times. She is now studying in South Africa with a view to return to Senegal and promote astronomy education. The need to show evidence of funds at the time of the visa interview is a common issue that affects postgraduate students.

7.8 Delays in visa processing can lead to students missing the start of their course which can have a lasting effect on their performance on the course. Many STEM subjects also involve extensive study outside of the UK as part of their programme, at international conference, industry placements or undertaking fieldwork for example. Delays over visas arrangements can, at best, complicate international students' study and at worse, prevent participation altogether.

7.9 The Science Council would like to see much greater collaboration between UKBI and the UK's higher education sector in the dissemination of international student visa information and requirements. It also recommends an overhaul of the UKBA website which is not user-friendly and a simplification in the language taking account of the fact that English is unlikely to be the first language for many of the users. It may be appropriate for an existing body such as Universities UK to work closely with the UKBA to ensure that all UK higher education institutions are able to develop consistent, easy to ready, up-to-date information on their websites to streamline the system.

**8. The Science Council would like to see further investigation into the potential of a biometric student passport or similar to simplify the visa application and verification process for international students.**

8.1 While we acknowledge the cost of implementing and maintaining a system such as this, as well as the civil liberties implications, it could mean that legitimate international students would not be subjected to overly-intrusive check-ups and investigation. Such a system would reduce academics' and university staff time in monitoring the status of international students, which for many is not within their field of expertise. The European Commission's European Professional Card to enable professionals to move more quickly and easily throughout the EU could provide a model for the development of an appropriate system for students.

*24 February 2014*

**Member Bodies of the Science Council – February 2014**

Association for Clinical Biochemistry and Laboratory Medicine  
Association of Neurophysiological Scientists  
Association for Science Education  
British Academy of Audiology  
British Association of Sport and Exercise Science  
British Computer Society  
British Psychological Society  
British Society of Soil Scientists  
Chartered Institution of Water and Environmental Management  
College of Podiatry  
Energy Institute  
Geological Society of London  
Institute of Biomedical Science  
Institute of Brewing and Distilling  
Institute of Corrosion  
Institute of Food Science and Technology  
Institute of Marine Engineering, Science and Technology  
Institute of Materials, Minerals and Mining  
Institute of Mathematics and its Applications  
Institute of Measurement and Control  
Institute of Physics and Engineering in Medicine  
Institute of Physics  
Institute of Science and Technology  
Institute of Water  
Institution of Chemical Engineers  
Institution of Environmental Sciences  
London Mathematical Society  
Mineralogical Society  
Nuclear Institute  
Oil and Colour Chemists' Association  
Operational Research Society  
Physiological Society  
Royal Astronomical Society  
Royal Meteorological Society  
Royal Society of Chemistry  
Royal Statistical Society  
Society for Cardiological Science and Technology  
Society for General Microbiology  
Society of Biology  
Society of Dyers & Colourists  
The Organisation for Professionals in Regulatory Affairs

## **Society of Biology – Written evidence**

The Society of Biology is a single unified voice, representing a diverse membership of individuals, learned societies and other organisations. We are committed to ensuring that we provide Government and other policy makers - including funders of biological education and research – with a distinct point of access to authoritative, independent, and evidence-based opinion, representative of the widest range of bioscience disciplines.

The Society welcomes the interest of the Committee and is pleased to offer these comments alongside the Science Council's response, which includes contributions from the Society and other pan-science bodies.

### **Summary Recommendations:**

**International students are vital to the culture and economic viability of Higher Education Institutions (HEIs), in the UK; however the number of non-EU students entering the UK to study the biosciences and related disciplines has been in decline since 2010. This is true for both undergraduate and postgraduate degrees where non UK/EU STEM students provide considerably more tuition fee revenue than the comparative fees than UK/EU students.**

The visa system must be sufficiently adaptable for researchers, to avoid the disruption of research programmes and waste of research funding. Messages regarding the UK's visa policies and processes must be communicated more clearly and the UK must work to reinstate its reputation as a welcoming destination for international STEM talent. We recommend that:

- i. Communications from the Home Office are consistent and visa guidelines are clear. The Home Office must work to communicate effectively the openness of the UK to international students and academics (e.g. to education agencies, institutions and others) to tackle the perception of the UK as a less attractive destination. Responsibility for this communication function should be assigned appropriately by/within the Home Office.
- ii. The Home Office leads constructive engagement with HEIs, learned societies and academics, and STEM-based industries. HEIs are working to address the decline in international students; Government also needs to act to support stable and sustainable international recruitment.
- iii. The Home Office and HEIs work together to improve the enforcement of visa restrictions without hindering legitimate immigrants or placing unnecessary administrative burdens on HEIs.
- iv. The academic visitors' route be made sufficiently flexible so that researchers can attend academic conferences and overseas meetings with ease. It is also suggested that the one year maximum time line be reviewed to provide some flexibility.

- v. The 'exceptional talent' route is to be publicised more widely by government and the scientific community with improved communication of its purpose and criteria.
- vi. The Home Office ensures visa charges are kept as low as possible for non-EU students and academics that are employed in the UK on government-funded and charity-funded grants.
- vii. The Home Office develops online resources and guidance for international students visiting the UK. For example, Germany has created an online resource<sup>171</sup> for international students that list all available postgraduate scholarships programmes and other information needed.

### **The need for International STEM Students**

Science is by its very nature a global enterprise. Many challenges are internationally relevant, and problem-solving and innovation are rarely country-specific. To be successful science relies on free movement of experts and information. The UK must attract the brightest minds if it is to maintain a global reputation for the excellence of its science. A well communicated access policy and an accessible student visa system are vital parts of this process, yet data shows that there has been a reduction in international STEM students coming to the UK, following reforms to student immigration policies since 2011<sup>172</sup>.

#### **Training**

STEM professionals often work internationally and attend overseas conferences. A second language is increasingly expected of candidates within top STEM professions and to work at sites of international infrastructure such as CERN. International exchange provides students with early experience of an international working environment, and offers the opportunity for improved language skills and cultural exchange.

#### **Skills**

It is well recorded that there is a shortage of sufficiently skilled domestic STEM graduates to fulfil the UK's future workforce requirements<sup>173 174</sup>. Initiatives such as the Society of Biology's Accreditation Scheme aim to address this need in the long term; however in the shorter term the UK's leading science and technology sectors need access to international talent through the immigration of skilled STEM students and workers.

#### **Funding**

International students at undergraduate and Masters level provide vital funding for the UK's Higher Education Institution (HEI) system, and contribute to the UK's economy as a whole. The average fee for non-EU international undergraduates studying laboratory based degrees

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<sup>171</sup> <http://www.studying-in-germany.org/>

<sup>172</sup> Q2 The Select Committee on Science and Technology Inquiry on International STEM Students Evidence Session No.1.

<sup>173</sup> Education and Skills Survey 2013, Confederation of Business and Industry.

<sup>174</sup> The STEM human capital crunch, The Social Market Foundation, 2013

in the 2013-14 academic year was £13,425 (the figure for classroom degrees was £11,289 and £24,228 for clinical degrees)<sup>175</sup>. The average fee for a non-EU international postgraduate studying a laboratory-based degree in 2013-14 was £13,841 (£11,589 for classroom, £21,795 for clinical degrees). This provides considerably more revenue than the comparative fees for UK/EU undergraduate students (£8,610) and UK/EU postgraduate taught students (£5,948).

A 2013 BIS report<sup>176</sup> estimates that in 2011/12 alone overseas students (STEM & non-STEM) studying in UK HEIs paid £10.2bn in tuition fees and living expenses. Non-EU student course fees contributed 11.6% of total income for UK institutions<sup>177</sup>.

HESA data<sup>178</sup> shows there is a decrease of non-EU (both postgraduate and undergraduate) students enrolled in courses in the *biosciences and related disciplines*\* in the last few years. The number of these students in 2010/11 was 31,470, falling to 31,070 in 2011/12 and to 29,220 in 2012/13. This represents a drop of 2,250 in these two academic years combined. This contrasts with an increase in the number of these students by 1,135 between 2009/10 and 2010/11. Figure 1 shows the HESA data split between undergraduate and postgraduate student numbers, which shows decreases at the postgraduate level of 1,860 students between 2010/11 and 2012/13 and a decrease at the undergraduate level of 805 students between 2011/12 and 2012/13.

Some STEM courses have a very high proportion of enrolled international students and the sustainability of these courses without these international students could be at risk. If some courses see a drop in non-EU overseas students then they may be forced to close if they are not financially viable for HEIs, affecting the future pipeline of properly education and trained UK scientists. Postgraduate taught masters may be particularly vulnerable as HESA data<sup>179</sup> shows that 45.0% of full-time postgraduate students in England in 2011/12 were non-EU overseas students.

For example, the numbers and demographics of students for the MSc Pharmaceutical Science course at the University of Greenwich have changed dramatically. Total numbers of students for 2009 and 2010 entry were 341 and 367 respectively; in 2012 total student numbers on this programme were 68. The number of students from India among this cohort may be noted: the numbers of overseas students from India were 189 and 299 in 2009 and 2010 respectively; in 2012 the number of overseas students from India was 35. The decrease in overseas numbers may be due, in part, to new visa regulations though further evidence is needed. This has had an impact on the income for the school.

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<sup>175</sup> Annual Tuition Fee Data for Full-time courses at UK Institutions 2013-14, Times Higher Education, 2013.

<http://www.timeshighereducation.co.uk/Pictures/web/i/i/q/annual-tuition-fee-data-for-full-time-courses-at-uk-institutions-2013-2014-02.jpg>

<sup>176</sup> International Education: Global Growth and Prosperity, Department for Business, Innovation and Skills, 2013.

<sup>177</sup> Non-EU domicile students' course fees, Higher Education Statistics Authority, 2013

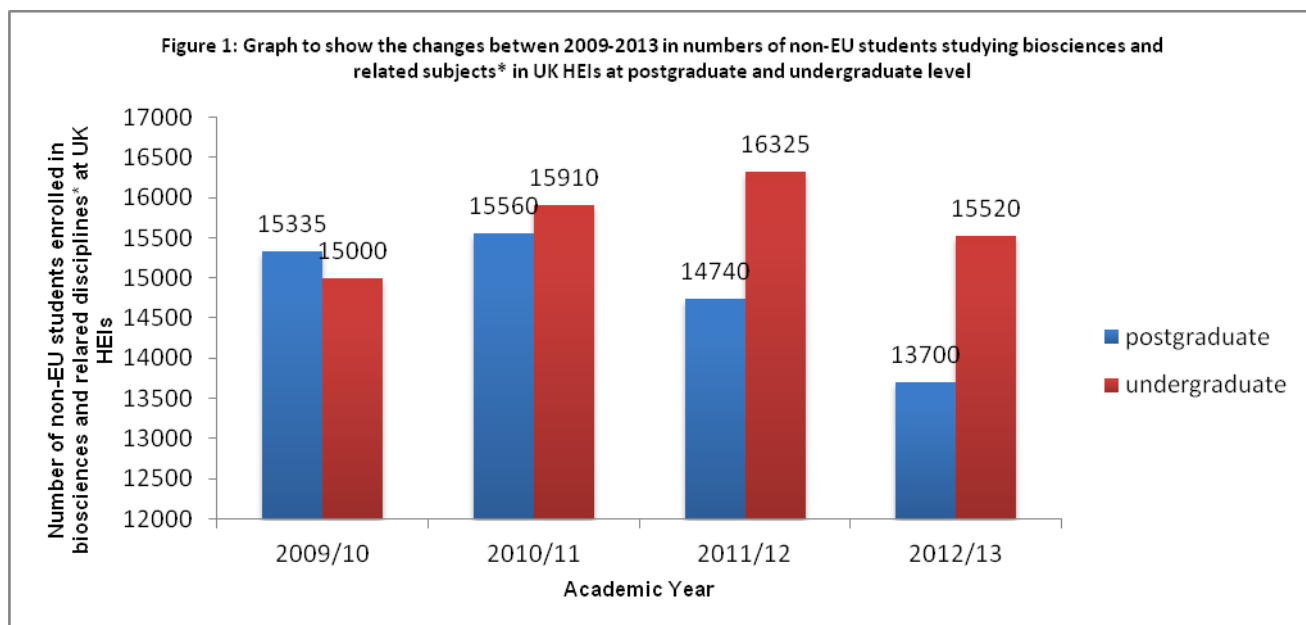
[http://www.hesa.ac.uk/content/view/2712/393/#non-EU\\_fees](http://www.hesa.ac.uk/content/view/2712/393/#non-EU_fees)

<sup>178</sup> Obtained on the 11/02/2014 from HESA Services Ltd. HESA does not accept responsibility for any inferences or conclusions derived from the data by third parties.

<sup>179</sup> Students at HEI in England by domicile, level of study and mode of study 2011/12, Non-UK domicile students, Higher Education Statistics Authority. 2013. <http://www.hesa.ac.uk/content/view/2663/393/>

\*In this document *biosciences and related disciplines* is defined according to JACS codes A (Medicine and Dentistry), B (Subjects allied to medicine), C (Biological Sciences) excluding C8 (Psychology), and D (Veterinary Science, Agriculture and related subjects)





### The STEM Pipeline

Studentships are critical entry-points for skilled scientists with the potential to contribute to the economy of the UK. A robust research community must attract the right talent at each stage of the pipeline. Ambitious and able students studying at undergraduate and Master's level understand that making connections will enable them to pursue PhDs and then post docs at high-achieving institutions and to develop the skills needed for a successful career. It has been noted that international students with first class degrees from UK HEIs struggle to return to the UK to further their education and careers. For the UK and its economy to benefit from such individuals they must see this country as potentially offering a future. To retain skilled individuals who can contribute to international competitiveness, it must be apparent that continued residency in the UK is a possibility. Changes in the post-study work visa since 2012 have not been reported favourably and so could have had a negative impact on the pipeline.

### Why are international students choosing to study elsewhere?

Existing measures, such as the inclusion of STEM work on the Shortage Occupation List, exemptions for PhD level professionals and the exceptional talent route help to create a welcoming environment and are valuable; however more must be done to fully benefit from these measures.

### Messaging & Enforcement

Government rhetoric on immigration is inconsistent with our need to attract the brightest minds to the UK. Broad brush anti-immigration messaging is damaging the UK's reputation as a welcome place to study, and no amount of institutional-level marketing will counter this.

The Government must be more nuanced with its approach to enforcement. Reports from students revealed the sometimes intrusive and complex nature of the visa process, which in some cases required registration at local police stations. For highly skilled students wanting to learn and contribute to UK science, this is at best off-putting, and at worst alienating.

The implementation of monitoring engagement varies across the sector, and can be onerous for both students and academics. Several academics reported their concerns with ‘singling out’ of particular groups for monitoring and reporting, which has made students feel annoyed and disparaged.

In addition, events such as those at the London Metropolitan University<sup>180 181</sup> are likely to have lasting after-effects, and portray the UK as unwelcoming of overseas students.

### Periods of Absence

International students also face difficulties if they need to take a period of abeyance for health-related or other personal reasons. For these students, returning home is now very difficult, as is getting an extension to their visa. This means that students remain in the UK and struggle to keep up with their research and studies. Although HEIs have policies in place to manage these situations, they cannot simply advise a student to take time out from their course as this could effectively end their careers in the UK.

This also relates to longer periods of absence – for instance overseas students cannot take maternity leave of more than 60 days without returning to their home country, and overseas students are not able to take internships that are longer than 60 days.

### Perception

There is a risk that visa issues experienced by students/academics at any stage in the pipeline will influence colleagues and student agencies in their country of origin. Our members have told us that central student agencies who guide the students on the best countries in which to study are now directing students to universities elsewhere (e.g. the USA) because in their view the visa situation in the UK has become too difficult. There is a risk that this will impact the UK’s ability to attract the best international students, and have a knock-on effect on our global competitiveness. The UK is currently perceived as the third most attractive destination for international study according to a survey of student agents representing over 100 countries<sup>182</sup>. However, the survey indicates that the UK has lost 8 percentage points on their scale of measurement as an attractive destination between 2008 -2013. This contrasts with increases in attractiveness for the top destination, the USA (5 percentage point increase), and the second most attractive destination Canada (15 percentage point increase) over the same time period.

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<sup>180</sup> *London Met banned from enrolling overseas students, Times Higher Education, 2012*  
<http://www.timeshighereducation.co.uk/420993.article>

<sup>181</sup> *London Metropolitan University, Higher Education Funding Council for England, 2012*  
<https://www.hefce.ac.uk/news/newsarchive/2012/news75126.html>

<sup>182</sup> *Seventh annual ICEF i-graduate Agent Barometer, 2013* <http://monitor.icef.com/2013/11/seventh-annual-agent-barometer-provides-agents-view-of-marketplace/> & *Sixth annual ICEF i-graduate Agent Barometer 2012*  
<http://monitor.icef.com/2012/10/2012-agent-barometer-global-survey-results-are-in/>

## Case Studies

Quantitative systematic data is broadly unavailable however we have asked our membership for relevant information, both positive and negative, and they have told us of difficulties faced by international students and researchers throughout the research pipeline. Some of these are described below:

- Indian students appear to be particularly affected by the changes. An international development coordinator for the biosciences at a UK HEI told us that at recent meetings in India, almost all Indian students reported a general feeling that UK is not welcoming to them as students. Those students perceive coming to the UK as a great opportunity and worthy of investment by themselves and their parents, in anticipation of some form of return - either in the form of a Post Study Work Visa or industrial placement opportunity to improve their skills and employability. Although the new Tier 4 visa has provisions for their stay to be extended by obtaining jobs with the annual pay of £25,000, the international students (through their peers), know that this is impossible to achieve within a year while concentrating on studies. Despite an 'increased presence' in India (i.e. introducing attractive scholarships and involvement with the British Council-India advertisements) the number of Indian students is on the decline in some HEIs.

**It is pertinent to state at this point that a number of HEIs across the country have noted a decline in Indian students in particular.**

- Regarding Masters courses we received information from HEIs that since the new policy reforms there has been an increase in accepted students being unable to take up places due to visa issues<sup>183</sup>. This can be because the timescale for issuing an offer of a student place to the student obtaining a Tier 4 visa can be very tight. This has resulted in a loss of expected income for institutions and a significant disturbance for the students involved.
- Regarding study to PhD level, we received a report that the transfer from a work visa to a student visa had caused problems due to complexity and lack of communication during application for an Academic Technology Approval Scheme (ATAS) clearance certificate. This caused significant stress for the candidate and a flight back to their home country (India), therefore expense and considerable delay to the start of the research project.
- Regarding postdoctoral employment, we have received reports from researchers that there are serious issues with the inflexibilities and timescale of the visa system, for example in not allowing easy extension of visas once they have already been issued. Timescales for research projects occasionally have to be extended to achieve completion. The visa system must have sufficient flexibility to take into consideration any changes in the circumstances of the individuals or of the research projects they are working on. The visa processes don't always appear to be quick enough to adapt

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<sup>183</sup> Information received from the University of Nottingham and Brunel University.

to such changes. We have had reports of talented postdoctoral researchers who have had to return to their home countries of China and Brazil as they have been unable to overcome these issues in a timely manner.

Visa insecurity can influence in-country progress as demonstrated by the case of an Indian national who completed their PhD in 2010 and was offered a post-doctoral position in the same institution. The salary for this position was low in terms of the requirements for work permits emerging (but was strictly tied to a grant and a particular university pay scale) and so qualification for a visa for the full three years of the project was uncertain. The lack of clear information about the work permit conditions and anxiety about being unable to complete the project caused the researcher to leave the post early for a higher-paid post at a different institution to ensure their work permit status would facilitate completing their research. This caused a hiatus in the original project which adversely affected the research outputs.

A Nigerian national who completed his PhD in the UK and went on to conduct research and lecture has been unable to work after his application under the Highly Skilled Migrant Programme was refused in 2009. Since then, he has re-applied for the permission to work on numerous occasions. As his wife is currently studying in the UK and they have a young son he is unable to return to Nigeria but is also unable to take paid employment. Often skilled researchers who reside in the UK for a number of years will come to see the UK as their home.

**It is important to note that the major losers here are the UK employers, as the postdoctoral scientist will be a highly trained person central to the effective running of the laboratory and in turn achieving the research outcomes. The sudden removal, even though they are often desperate to complete the research is a major loss for all concerned. Since a high proportion of research is publically funded, any researchers from overseas who are forced to leave their positions due to these regulations could undermine the productivity of this investment and be potentially wasteful.**

- There are also problems reported due to the unpredictability of acquiring short-term visas for visiting academics. One example is of a Ukrainian academic who received funding to work in the UK for a week at a high-technology government-funded facility as part of a collaborative project on fish embryo freezing in 2012 but who's visa was denied without appropriate explanation, and so could not utilise either the funding or the booked time on the equipment. Without any change of circumstance the researcher was then later granted the visa (in late 2013) but at very short notice and giving little time for his UK collaborators to prepare for experiments. This unpredictability stifles international research collaborations and could result in wasted funding and delays to research progress.
- The inflexibilities of the Academic Visitor Visa is highlighted for those applying for the 'Science without Borders scheme'<sup>184</sup>. The scheme allows postdoctoral researchers to come to the UK for 6-12 months (extendable for up to 2 years). However, the visa

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<sup>184</sup> Postdoctoral applications, Science without Borders <http://sciencewithoutborders.international.ac.uk/student-applications/postdoctoral-applications.aspx>

situation is complex. The Academic Visitor visa has a strict one year limit, so the applicants are advised to ignore the Academic Visitor Visa in case they would like to extend their stay, and to apply for a tier 5 visa instead. Such instruction is complex and off-putting for the incoming student.

- We have heard that, on occasion, non-EU overseas students and researchers have been unable to obtain visas in a timely manner to visit research collaborators, conferences and training courses in Europe. Researchers based in other European countries do not face these challenges when travelling within the Schengen Area. There is genuine concern that students and researchers choose to go to other countries where there is a greater freedom of movement.

## **Conclusion**

The entire academic and business pipeline need to be attractive to international STEM students in order for them to choose to study in the UK. Whilst cause and effect can be hard to ascertain, from consultation within our membership and from looking at the available data, the Society of Biology is concerned that immigration policy reforms since 2010 have impacted the number of talented students and researchers attempting to pursue an academic career in the UK.

*24 February 2014*

## **Member Organisations of the Society of Biology**

### **Full Members**

Agriculture and Horticulture Development Board  
Anatomical Society  
Association for the Study of Animal Behaviour  
Association of Applied Biologists  
Biochemical Society  
Biosciences KTN  
Breakspear Hospital  
British Andrology Society  
British Association for Lung Research  
British Association for Psychopharmacology  
British Crop Production Council  
British Ecological Society  
British Lichen Society  
British Microcirculation Society  
British Mycological Society  
British Neuroscience Association  
British Pharmacological Society  
British Phycological Society  
British Society for Gene and Cell Therapy  
British Society for Immunology  
British Society for Matrix Biology  
British Society for Medical Mycology  
British Society for Nanomedicine  
British Society for Neuroendocrinology  
British Society for Parasitology  
British Society for Plant Pathology  
British Society for Proteome Research  
British Society for Research on Ageing  
British Society for Soil Science  
British Society of Animal Science  
British Society of Plant Breeders  
British Toxicology Society  
Experimental Psychology Society  
The Field Studies Council  
Fisheries Society of the British Isles  
GARNet  
Gatsby Plants  
Genetics Society  
Heads of University Centres of Biomedical Science  
Institute of Animal Technology  
International Biometric Society  
Laboratory Animal Science Association  
Linnean Society of London  
Marine Biological Association

MONOGRAM – Cereal and Grasses Research  
Community  
Nutrition Society  
The Rosaceae Network  
Royal Entomological Society  
Royal Microscopical Society  
Science and Plants for Schools  
Scottish Association for Marine Science  
Society for Applied Microbiology  
Society for Endocrinology  
Society for Experimental Biology  
Society for General Microbiology  
Society for Reproduction and Fertility  
Society for the Study of Human Biology  
SCI Horticulture Group  
The Physiological Society  
Tropical Agriculture Association  
UK Environmental Mutagen Society  
UK-BRC – Brassica Research Community  
UK-SOL – Solanacea Research Community  
University Bioscience Managers' Association  
Vegetable Genetic Improvement Network  
Wildlife Conservation Society Europe  
Zoological Society of London

**Supporting Members**

Association of the British Pharmaceutical Industry  
Association of Medical Research Charities  
Astrazeneca  
BASIS Registration Ltd.  
Bayer  
BioIndustry Association  
BioScientifica Ltd  
Biotechnology and Biological Sciences Research Council Council  
BlueGnome Ltd  
The Ethical Medicines Industry Group  
Forest Products Research Institute  
Huntingdon Life Sciences  
Institute of Physics  
Ipsen  
Lifescan (Johnson and Johnson) Scotland Ltd  
Medical Research Council  
Oxford University Press  
Pfizer UK  
Royal Botanical Gardens Kew  
Royal Society for Public Health  
Select Biosciences

Society of Biology – Written evidence

Syngenta  
The British Library  
UCB Celltech  
Unilever UK Ltd  
Wellcome Trust  
Wiley Blackwell



## **Dr Ripduman Sohan, University of Cambridge – Written evidence**

I write in my capacity as Senior Research Associate, University of Cambridge Computer Laboratory where I lead a project within the “Computing For The Future Of The Planet” research theme.

I am experienced with the issue at hand. I am a result of British commonwealth links and influence. I was born in Nairobi (where my family still lives) and came to the UK in 1999 on a Kenyan passport to pursue a degree in Computer Science at City University London. After completing my undergraduate degree I continued to my PhD degree under the tutelage of Professor Andy Hopper, current head of the Computer Laboratory at the University of Cambridge. I am currently in employment at the University of Cambridge working jointly with Professor Hopper. We have also co-founded and invested in a company (TxtEz Limited) that is exploring unified messaging opportunities on the African continent.

My decision to pursue further studies and consequently continue my career in the UK has been expensive both financially and personally. It cost £60,000 for my undergraduate degree and a further £60,000 for my PhD as I was not eligible for EU funding. Given the distance between the UK and Kenya and the general busy nature of modern life I am only able to spend limited periods with my immediate family. Nevertheless, I believe I made the right decision. The UK has afforded me opportunities to develop professionally and socially in dimensions I didn't even know were possible when I first arrived here. I am one of those grateful to a country that provided me with the opportunity to prove myself and ultimately awarded me the accolade of considering me one of its own by bestowing citizenship upon me.

However, the ongoing changes to the immigration rules concern me enough to write to you. I spend much of my time talking to potential students with strong STEM backgrounds living in commonwealth (India, South Africa, Kenya, Uganda and Tanzania) countries. My anecdotal evidence leads me to believe the draconian changes in the immigration rules are strongly discouraging students from applying to the UK for both undergraduate and graduate degrees. In this letter however, I will focus only on graduate students in the field of Computer Science and Engineering and I will provide four highlight concerns; two from the point of view of potential students and two from the academic point of view.

The topmost concern for potential students is the restriction on the opportunity to gain experience by working in the country after graduation. Every student I've talked to has expressed that postgraduate degrees in Britain are expensive, near impossible to qualify for on merit (due to lack of scholarships for overseas students) and are generally perceived to be of inferior quality to US degrees. However, the potential to work in the country for 2 years post graduation was a very strong incentive for students as experience in a British company is highly regarded around the world and because it provided students with the chance to earn back a fraction of the cost of their studies. It appears restricting the post-study work scheme to only PhD qualified applicants for a maximum of only one year has severely affected the competitiveness of postgraduate British degrees in the eyes of potential students, especially those wishing to carry out Masters degrees.

The second most articulated concern by potential students was that Britain's interests in providing education to international students has changed from helping to develop, support and train to one of extracting as much financial gain as possible. Students have cited ever-increasing fees (in one extraordinary case a gain of 250% over a 3 year period) as evidence. Many students have also pointed out that high ancillary and government costs (in the form of visa fees) are discouraging, particularly when the government is aware that even the most basic year-long postgraduate course, inclusive of living costs, will cost at least £20,000. Until about five years ago it was widely held that the UK offered the best value for money for STEM subjects. The USA was considered prohibitively expensive and other destinations like Australia were regarded as being of inferior quality. With the cost of a basic Computer Science postgraduate degree in a middling UK university now approaching that of the upper tier in the USA, students are increasingly choosing to obtain postgraduate education elsewhere.

Of late (within the last two years) I have also heard many students express that the general atmosphere emanating from the UK with regards to temporary residence seems to be wholly xenophobic. It may be helpful for universities to clearly and boldly outline the advantages of their degrees compared to other institutions. It may also be helpful for the government to counteract this general perception that foreign students are unwelcome beyond the money they bring.

As a Cambridge academic I'm finding it increasingly difficult to recruit the best international students in spite of the excellent reputation of the department in academia and industry. The scarcity of startup visas and the general lack of government support for companies started by non- EU nationals means that entrepreneurial students usually prefer to carry out their postgraduate education in US universities. Similarly, the lack of government support for post-doctoral funding for non-EU nationals means that academic students tend to discount the UK in favour of countries like Germany which actively recruit non-EU postdoctoral fellows in specialised Research Institutes (e.g. the Helmholtz Association or the Max Planck Society).

Finally, the short-sighted nature of the UK immigration system with respect to international students puzzles me. It takes a lot of courage, tenacity and perseverance to travel halfway across the world and spend multiple years in relative isolation in the single-minded pursuit of an education in a foreign and sometimes times unfriendly country. A student who is able to achieve this feat should be retained as it is precisely these personal characteristics which are likely to lead to a more-productive-than-average member of society. It is quite frustrating to train a student to a high level and have them migrate to some other (usually G8) country and become a direct academic or industrial competitor. Finally, I highlight that, by and large, the students that graduate from postgraduate STEM degrees tend to fill positions for which companies are having difficulty recruiting in the first place.

I consider myself a product of and advocate for British influence in educating the world. On a personal level I have benefited immensely from an immigration framework that allowed me to prove myself and that rewarded me for doing well. It pains me every time I lose a student due to the new inflexible and bureaucratic immigration rules.

I realise this has been a personal testimony. It is, however, borne from first-hand experience.

*27 January 2014*

## **UK Computing Research Committee (UKCRC) – Written evidence**

The UK Computing Research Committee (UKCRC), an Expert Panel of the British Computer Society, the Institution of Engineering and Technology and the Council of Professors and Heads of Computing, was formed in November 2000 as a policy committee for computing research in the UK. Its members are leading computing researchers who each have an established international reputation in computing. Our response thus covers UK research in computing, which is internationally strong and vigorous, and a major national asset. This response has been prepared after a widespread consultation amongst the membership of UKCRC.

The UK's stated policy of shifting its emphasis towards an economy with more manufacturing, the Research Councils' greater emphasis on technology and manufacturing, and the ongoing shortage of the numbers of new graduates (including some of those with doctoral degrees) that are needed to fuel and maintain these shifts, appear to be at odds with the Government's policies regarding visas for scientists and engineers with research degrees or for those seeking advanced degrees. Although it is hard to know whether recent changes in immigration rules alone have had a major impact on prospective PhD students and post-graduate and post-doctoral research assistants who would normally choose to study and conduct research in the UK, we have indeed observed a significant drop in general for incoming STEM students, and a shift in the countries of origin for STEM students who enter the UK. Visa policy may not be the only cause of this problem but it is a contributory cause.

It is quite clear that the length of time required to obtain a visa by, say a prospective Chinese PhD student who has gained admission to a UK university, has increased significantly in the last two years, with processing total delays reaching four or more months. This is a serious amount of wasted time for anyone who has ambitions to progress and succeed in their chosen field of research. There is currently a seller's market for high performing students in computing science, with very strong competition between international universities for the best students. The time window in which UK universities can compete for these students is brief and uncertainty over the outcome of visa applications places us on the back foot in competition.

The measures put in place after 6th April 2013 allowing PhD students completing their course to apply to stay in the UK for a further 12 months beyond the end of the course, so as to find skilled work or to set up as an entrepreneur, are indeed positive and are aligned with common practice abroad, for instance in the USA and in France. However, for PhD graduates of UK universities who are non-EU citizens and who have a job offer, the hurdle of the acquisition of leave to work in the UK has become quite daunting, with unexplained delays and the sheer difficulty of obtaining an interview with the Immigration Authorities.

Regarding post-doctoral research, the whole process of applying and obtaining a working visa for a non-EU post-doctoral candidate from an elite university in, say Israel or the US, or for a non-EU citizen who receives a PhD from an EU university or research centre, seems to

have been designed to dissuade both the UK sponsor and the candidate from taking this perilous, time consuming and uncertain route.

This problem is exacerbated by the fact that the UK is often, by European standards, an expensive study destination. While certain BRIC countries such as Brazil, as well as Chile, have launched programmes to place large numbers of their own PhD students abroad, the purely nominal doctoral tuition fees that are paid in most European countries are a significant disadvantage for attracting them to UK universities. Thus several countries in Europe, including Hungary, France, Italy and Germany, are attracting an increasing number of PhD students from Brazil. UK strategy has been, on the whole, to increase fees (both internally via tuition fees and internationally) while UK Research Council scholarships are focused on home students rather than attracting students from abroad. The combination of high fees, few scholarships and more difficult navigation of visa rules is not a recipe for attracting the best and brightest PhD students to the UK from abroad.

Beyond this, European nations continue to raise their attractiveness in other ways. In France, work rules have been relaxed and amended by the current government, whereas previously it was difficult for non-EU doctoral graduates to apply for post-doctoral and other positions. France, Germany, Switzerland, the Netherlands, Belgium and Scandinavia have made it much easier to teach and conduct research activities in English, reducing one of the UK's most competitive assets. German industry, even the automotive industry, is competitively extending its reach in advanced computer science and electrical engineering as transportation becomes "smarter", and many of our own UK PhD graduates from different countries move to Germany to take up advanced technology jobs in industry and applied research centres which abound in that country.

UK computing departments do still play strongly in an extremely competitive environment where the ubiquity of our discipline means that competition is worldwide. In addition to the traditional US competition, many countries in the European Union as well as Switzerland are actively and aggressively recruiting foreign talent into their PhD programmes and into post-doctoral and other research positions. Research activities in Europe, China, Singapore, Taiwan and India are expanding and PhD candidates as well as graduates from abroad (and of course their own home students) are being encouraged to take up doctoral traineeships and post-doctoral positions in these countries.

The UKCRC therefore feels that the current process for attribution of visas to highly qualified PhD candidates and post-doctoral researchers is badly conceived at a time when many other factors also make the decision to study in the UK less clear cut than it may once have been. Sending an unwelcoming message abroad will affect not only the higher education sector in general, and the STEM fields in particular, but can also adversely impact the image of British business and society internationally.

<http://www.ukcrc.org.uk/>

*15 February 2014*

## **UK Council for International Student Affairs (UKCISA) – Written evidence**

### **Briefing on the Immigration Bill**

UKCISA is particularly concerned about the impact on international students of three proposals within the Immigration Bill:

- The abolition of appeal rights and their replacement with a system of ‘administrative reviews’
- The requirement for all landlords to undertake immigration checks and
- The introduction of a Health Services Levy.

All of these could, we believe, make the UK far less attractive and welcoming to international students just at a time when the latest HESA (Higher Education Statistics Agency) figures show that after many years of annual growth, 2012/13 saw the first reduction in the number of non EU higher education students since records began and reductions, for a second year running, of 25% for students from India and 19% for students from Pakistan.

### **Background**

Whilst there has been no consultation on the abolition of appeals, the government did consult on immigration checks by landlords and a Health Services levy during the summer of 2013. UKCISA and many others put in detailed evidence on how these measures would

- have a profoundly negative impact on legitimate international students who represented the majority of ‘migrants’ who would be affected
- make the UK seem far less welcoming to them (with further impact on numbers)
- be difficult and/or costly to implement and
- did not seem to be justified or well targeted if the aim was to reduce abuse within the system.

(Copies of our full responses, with very detailed comments on each aspect can be found at <http://www.ukcisa.org.uk/news/116/NHS-charges-landlord-checks--illegal-working>

With only very minor amendments however, the Bill still includes these measures together with the abolition of appeal rights which will again, given their numbers, affect legitimate international students more than any other category.

### **1. Appeal rights**

International (non EAA) students (and their dependants) often need to appeal against decisions by the Home Office to refuse applications for visa extensions, when completing their degrees or moving on to higher level courses, for a wide variety of reasons.

It is officially accepted and noted in earlier debates that nearly 50% of appeals are upheld because the decisions were unsound in the first place and we are regularly now seeing cases of obvious technical errors by Home Office staff (such as misreading amounts of money in bank accounts or days when cash has been held or relevant dates) and whilst it is open for these cases to be reconsidered now, this is not happening in practice.

In fact since March 2013, caseworkers have been specifically instructed not to reconsider cases even when they can see and accept that obvious errors have been made – an issue which we have raised with the Director General of Visas and Immigration and the Independent Inspector of Borders and Immigration, but with no success.

Additionally it has been claimed that administrative reviews rather than appeals have been successfully introduced for entry clearance decisions overseas as evidenced by the small number of reviews which result in decisions being overturned.

However our evidence from members suggests that the review system does not work effectively. Given the time required for these reconsiderations, when students have so little time before their courses start, very few of them risk going through the process, preferring merely to submit (at additional cost) a repeat application.

We are also concerned that the attempts to limit the scope of Article 8 (the right to respect for family and private life) will have an adverse impact on students as they will not be able to rely on this in future applications, or challenges to refusals or removal action.

It is difficult to see therefore how the removal of appeal rights and the introduction merely of administrative reviews, in which similar officials would scrutinise applications and could come to similarly erroneous decisions, would be adequate, effective or just. There are also extensive circumstances where wider considerations need to be taken into account, and this would not be possible without an impartial review system.

- We do not know of any evidence of Tier 4 students abusing the appeals system.
- We do have evidence of extensive errors by Home Office staff
- We believe a system of independent appeals should be preserved for all, in terms of natural justice.
- But at the very least as erroneous decisions can have such a damaging impact on the continuation of an international student's education (and future career), **we are urging the government to retain rights of appeal for all Tier 4 international students (and their dependants).**

## **2. Immigration checks by landlords**

Whilst we can understand the government's desire to ensure that those who are not legally in the UK do not have access to housing, the proposal to require all landlords to undertake immigration checks of all prospective tenants (including students) appears to be fundamentally flawed for a number of reasons.

There is no evidence that international/non-EU students (who are again the majority of ‘migrants’) present any difficulties in this area.

To check whether a student is or is not a ‘migrant’, and to comply with the Equality Act, all landlords would have to check the immigration status of all (including UK) students which will put a disproportionate burden on all.

There is a very clear and obvious risk of discrimination with some landlords preferring not to rent to anyone who might look or sound or appear to be in any way ‘foreign’.

International (Tier 4) students already have their immigration status checked by the ‘sponsoring’ educational institution as part of their compliance procedures and this will merely duplicate that process.

Employers, with professional HR departments, have very considerable difficulty in assessing immigration status and the vast variety of schemes and immigration stamps which exist and we have examples of obvious mistakes which even they can make. It is difficult to see how each and every landlord in the country, most of them handling very few tenants each year, will be able to make appropriate judgements.

There are extensive concerns about the availability of documents when visa extensions are being processed for those continuing to higher level courses, just when the same paperwork may be required for new accommodation.

The requirement essentially to have a visa before renting accommodation – a process which is often done online - will make it difficult if not impossible for international students (or their parents) to arrange accommodation, securely, months in advance of arrival.

There is now an exemption in the Bill for university managed accommodation or for premises where the majority of places are reserved for those nominated by educational institutions. This does not, however, start to address the potential problems as the vast majority of students, be they domestic or international, are in privately rented accommodation.

There have been suggestions that one way to exempt international students – as their immigration status is already being checked by others – is to exempt landlords from the requirement if they are renting to any student who has an offer of a place at a licensed and registered college.

The concerns here however are that that will require all colleges to produce for all students some additional piece of paper, which is equally bureaucratic and burdensome, and require all landlords to understand who might need such a piece of paper and which colleges were eligible to produce them.

- There is no evidence that this procedure is required at least for international students



- It is difficult to see how this requirement could be introduced without applying to all students which would be intrusive and entirely disproportionate.
- There are major fears of discrimination and extensive concerns about the ability of landlords to interpret complex rules correctly
- There are major concerns that this would make obtaining a flat in advance of arrival in the UK difficult or impossible and make the UK a far less welcoming and attractive destination for foreign students.
- **There are strong grounds to suggest that international students could be a special case and exempted (as immigration checks already done by others) but even this could need complex interpretation by landlords and the simplest approach would be for all students to be exempted or for the proposal to be withdrawn.**

### 3. Health Services levy

UKCISA accepts that many may believe that it is right in principle for those coming to the UK (for more than 6 months) but who do not have permanent residence, to pay a modest contribution towards possible use of health services.

We also welcome the government's suggestion that for international students this levy might be set at £150 for each year of a student visa rather than the £200 per year to be charged to other 'migrants'.

We also believe that the levy is a better option than the earlier alternative of mandatory health insurance (which might be more expensive, would doubtless have various exclusions, provide different cover to different students depending on from whom it was purchased and could result in individual distress and public health concerns if individuals attempted to avoid using it, fearing 'excess' payments and/or increased premiums in the future).

However we believe that the principle of introducing any sort of health services charge specifically for international students is both unnecessary and un-justified.

International students, unlike many other migrants, already pay more than the full cost of their education in the UK plus all their living expenses amounting to total earnings to the UK, from the latest BIS estimates, of £13.6 bn annually.

All of their living expenses support the economies of local communities; they all pay VAT in the normal way and tax, when required, on part-time earnings. They are therefore already making a major financial contribution to the UK.

- There is little or no evidence to show extensive use of the NHS and absolutely none to show patterns of health tourism or abuse.
- The average international student will spend something in the region of £75,000 for a 3 year degree programme. To pay any amount on top (which for a PhD student with a spouse, coming for four years, could be £1200 all paid in advance) will seem like a form of penalty charge and could well be a powerful disincentive.

- As the levy will be paid with the visa application, it will merely be seen as a massive increase in the visa fee and one more indication that the UK does not welcome international students.
- **We believe this will be damaging to the UK's reputation and economy and that all Tier 4 international students (and their dependents) should be exempt from the requirement.**

### **International student views**

The National Union of Students is currently undertaking a survey of what impact international students (and students in general) believe all these measures will have on the attractiveness of the UK and the likelihood that they would recommend the UK to future students.

Full results would be available shortly but from over 2000 respondents who had replied by late January, students are expressing concern on a number of areas within the bill, with a high response from PhD students who are, of course, of particular importance to the UK's research infrastructure.

### **Notes**

The UK Council for International Student Affairs is the UK's national advisory body serving the interests of international students and those who work with them.

Its members include every university in the UK, the majority of publicly funded higher and further education institutions which are active internationally, a number of independent schools and private colleges and a range of specialist and representative bodies.

Its Chair is Professor Paul Webley (Director of SOAS and Deputy Vice Chancellor of the University of London) and its President is Baroness Usha Prashar.

*23 January 2014*

## UK Deans of Science – Written evidence

1. UK Deans of Science (UKDS, [www.deansofscience.ac.uk](http://www.deansofscience.ac.uk)) is a national body that seeks to represent the individuals, usually formally designated as Deans, who are responsible for science in HEIs across the UK and who generally hold the budgets for science including any research budgets. Its primary aim is to ensure the health of the science base through the promotion of science and scientists and of scientific research and science teaching.
2. We very much welcome this timely inquiry. As will be evident from this response, UKDS believes that recent immigration issues have had a significant negative effect on recruitment of non-UK domiciled STEM students as well as those in other subjects. We pinpoint some of the variables that have affected recruitment, although it is recognised that the overall picture is complex.
3. This response has been agreed by the UKDS Executive Committee. Any queries should be addressed in the first instance to Prof Ian Haines, Executive Secretary, UK Deans of Science.

### The context – international students in UK Universities

4. The contribution of international students to the UK economy and to our universities is uncontested. In a most comprehensive and well researched report prepared for the Department of Business, Innovation and Skills, London Economics estimated the value of all overseas trade and investment in UK education<sup>185</sup>. Of the total for the year 2008-09 (£14.1B) by far the largest single factor was the contribution of higher education at £7.9B, amounting to 56% of the total. Allowing for changes in student numbers and inflationary fee increases, the value in 2013-14 is almost certainly over £10B, which includes about £5.5B in fees and living expenses. Since take up by UK domiciled students on education overseas is relatively low, this makes higher education one of the larger annual revenue contributors to the balance of payments. We would expect the Coalition to do everything in its power to support any sector of the economy that delivered such a positive economic performance. However, UKDS members do not see international students as sources of income. We would emphasise that they are a unique source of diversity, making an enormous contribution to individual universities, their staffing, to the environment in Faculties and STEM departments, to research activities and individual taught programmes, illustrating the international nature of STEM.

**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?**

**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?**

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<sup>185</sup> London Economics: Estimating the Value to the UK of Education Exports, BIS Research Paper 46, June 2011, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32398/11-1055-feasibility-estimating-value-of-uk-education-imports.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32398/11-1055-feasibility-estimating-value-of-uk-education-imports.pdf)

5. These two questions require some deconstructing and contextualising in respect of the contribution of non-UK students in our universities. It is important to take account of the publicity that has accompanied discussion about immigration as well as changes to immigration rules themselves. For this it is instructive to consider the recruitment of other EU students, whose numbers we believe to have been adversely affected, as well as the non-EU students to whom the immigration visa rules apply. We will consider recruitment in all subjects, not merely in STEM, in order to indicate the full extent of the problems and will point to some of the factors that have caused the changes that have occurred.
6. The figures clearly show a worrying downward trend in recruitment. As Table 1 illustrates non-UK students make up quite different proportions of students in the various modes and levels of study. At undergraduate level for 2012-13 although the proportions were quite low the overall numbers are significant (at 217,400) so that even a small drop in recruitment over a three/four year period will have a large impact on a university's budget. At postgraduate level although the total number of students is slightly lower (198,860), they made up 38% of all postgraduate students and 58% of full-time candidates. It will be evident that many postgraduate programmes will become non-viable if the numbers of non-EU students were to drop significantly. Because most taught postgraduate programmes are one year in length any year on year drop in recruitment impacts very quickly on budgets. It is worth noting here that if one supposed, as an admittedly rough approximation, that the 18% of non-UK students support the employment of an equivalent percentage of university staff, then in 2012-13 about 33,400 academic staff and 35,400 non-academic staff owed their posts to non-UK students.

**Table 1. Total student numbers by domicile 2012-13<sup>186</sup>**

Mode of study	Total	UK students	Other EU	Non-EU	Other EU as percentage	Non-EU as percentage
Full-time postgraduate	296,470	126,955	34,300	135,215	12%	46%
Part-time postgraduate	239,965	210,620	11,535	17,810	5%	7%
All postgraduate	536,440	337,575	45,835	153,025	9%	29%
Full-time undergraduate	1,385,675	1,180,885	71,760	133,025	5%	10%
Part-time undergraduate	418,165	396,555	7,695	13,920	2%	3%
All undergraduate	1,803,840	1,577,440	70,455	146,945	4%	8%
All students	2,340,275	1,915,015	125,290	299,970	5%	13%

<sup>186</sup> Higher Education Statistics for the United Kingdom, 2012/14, HESA 2013  
<http://www.hesa.ac.uk/content/view/1897/706/>

**Table 2. STEM PGT enrolments by subject and domicile 2011-12<sup>187</sup>**

	Number of students	Non-EU as percentage	Other EU as percentage	UK as percentage
Mathematics and computing	21,340	49%	9%	41%
Engineering and Technology	38,740	49%	13%	38%
Physical sciences	7,840	29%	10%	61%
Architecture, building, planning	7,365	24%	8%	68%
Veterinary science, agriculture, related	2,320	21%	11%	67%
Medicine, dentistry	7,740	19%	7%	74%
Biological sciences	10,220	14%	8%	78%
Subjects allied to medicine	14,575	10%	4%	86%

7. Table 2 shows that the threat to postgraduate taught enrolments from a major decrease in recruitment of non-UK students varies across STEM subject areas. Some in the biological and medical areas would not be seriously affected overall (though individual programmes may well be). Very worrying are the areas of mathematics and computing (mainly computing-based courses) and engineering and technology, which not only rely very heavily on international students but also account for relatively large numbers of students.
8. While the above data give some understanding of the overall importance of non-UK-domiciled students to UK HEIs, we suggest that the effect of any changes in immigration policies is better illustrated by reference to data on new enrolments. Changes in new enrolments for the most recent academic years for which data are available are given in Table 3. These show significant year on year growth in postgraduate and undergraduate students in all three domiciliary categories up to 2009-10, continuing the trend of the previous decade. In all categories there is a significant change in around 2010-11/2011-12, with growth either very much reduced or becoming negative.

**Table 3 New enrolments in all subjects 2008-09 to 2012-13, by domicile**

Year of first enrolment		UK [Percentage change on previous year]	Other EU [Percentage change on previous year]	Non-EU [Percentage change on previous year]
2008-09	Postgraduate	194,190 [+9%]	24,980 [+9%]	87,370 [+16%]
	Undergraduate	744,845 [+6%]	35,235 [+1%]	57,400 [+13%]
2009-10	Postgraduate	208,170 [+7%]	27,930 [+12%]	97,565 [+12%]
	Undergraduate	750,895 [+1%]	36,455 [+4%]	64,180 [+12%]
2010-11	Postgraduate	200,875 [-3%]	29,390 [+5%]	195,915 [+8%]
	Undergraduate	705,385 [-6%]	36,095 [-1%]	69,030 [+2%]
2011-12	Postgraduate	185,120 [-8%]	28,930 [-2%]	103,150 [+8%]
	Undergraduate	693,890 [-2%]	35,835 [-1%]	70,410 [+2%]
2012-13	Postgraduate	175,655 [-5%]	27,320 [-6%]	102,270 [-1%]
	Undergraduate	567,725 [-18%]	28,800 [-20%]	70,410 [-1%]

<sup>187</sup> Data supplied by UUK based on HESA statistics

9. UKDS have advised on a number of occasions that fees, loans and other debt would impact especially on demand from UK students for postgraduate study. It is our contention that this is less of an issue for other EU students but that they have been affected to an extent by the anti-immigration position adopted by the Coalition. However, there can be no doubt that the non-EU, international student numbers have not been affected by the UK fee/debt issue but by other factors, some of which have already been described here. Unfortunately separate data for new enrolments by domicile and STEM subject are not readily publicly available but we expect that the HEFCE's Analytical Services Group will have furnished the Committee with this information and with an appropriate commentary in addition to the data discussed by the Committee at its evidence session on 4th February. Some specific examples of major reductions in intake are given elsewhere, but UKDS can confirm that generally the pattern has been similar to the well publicised pattern of major reductions in students from the Indian subcontinent (particularly affecting computing and engineering programmes) but with Chinese numbers still rising and other countries more or less stable. Incorrect judgments on immigration policy now could see the India effect replicated elsewhere with devastating outcomes.

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

10. There can be little doubt that the data given above were affected by changes in immigration policies but also by the rhetoric associated with the immigration debate and the way in which policies have been applied in individual cases. It is the combination of the negative aspects of these three issues that create the perception that the UK no longer welcomes international students.

**The rhetoric**

11. We believe that the language of the immigration debate before the 2010 general election had a major negative influence on the attractiveness of the UK as a location for higher education. During 2010 there was emphasis on promises to reduce 'net immigration to tens of thousands' and clamp down on bogus students and bogus colleges. This sentiment was encapsulated in the '*The Coalition: our programme for government*', published on 20 May 2010, in the following terms: 'We will introduce an annual limit on the number of non-EU economic migrants admitted into the UK to live and work. We will consider jointly the mechanism for implementing the limit'. The publication also referred to the need to 'minimise the abuse of the immigration system'. It cited as the only example, abuse of the student visa route. This undoubtedly impacted on recruitment of non-UK students, including, we contend, those from the rest of the EU in mainland Europe.

**Immigration rules**

12. The 2010 election was followed by frequent, almost monthly, changes in immigration rules. Of particular significance for higher education were:

- i. closure of the Post-Study Work route (PSW) that allowed non-EU graduates completing their studies to remain in the UK for up to two years, replacing it with a new, more-restrictive scheme. The PSW helped graduates to obtain valuable work experience and importantly created relationships between them and UK companies that could be of major benefit to the UK in the longer term when graduates returned to their home countries. Any reduction in the numbers of international students at this time will reduce the legacy effect of this in the future.
- ii. reducing the numerical cap on skilled workers. This gave the impression that the UK does not need such individuals while it faces a predicted enormous shortfall of STEM skills if the balance of the economy is to change in line with government intentions
- iii. increased checks on English language capabilities. We do not argue that skills in English are unimportant, indeed they are essential for graduate study in the UK, but it is possible that they may now be over-specified for some students of STEM where mathematics and technical skills predominate. Interestingly there was a specific clause introduced under Tier 4 that removed the English language requirement for inter-company transferees
- iv. the use of the term, *exceptional talent*, for one category under Tier 1. There is anecdotal evidence that this has been interpreted in STEM circles as being reasonably likely to win a Nobel Prize. Its application has certainly blocked the appointment of some very able STEM academics. The fact that in its first full year of operation it permitted the entry of only 25 individuals while under Tier 2, 1080 apparently talented sportspeople were allowed entry<sup>188</sup>
- v. the academic progression regulation that prevents an applicant from studying for a course at the same level as one s/he already possesses has led to numerous STEM students having their applications refused. Many postgraduate qualifications are used to change career direction or to gain a completely new set of skills that are not possessed by the applicant in spite of having a postgraduate qualification. This is especially true of STEM subjects where knowledge can rapidly become out-dated and/or very specific, cutting edge knowledge may be sought.

### **Application of the rules.**

13. There is much concern over the rigidity of the way in which the rules are applied by officials when a visa application is being considered. Application of the rules is believed to be such that students are put off applying and only serve to give the message that the UK does not welcome international students. Some specific examples of the problems raised by members of UKDS included:
  - i. an MSc that attracts very high calibre candidates who are taught on the basis of three day intensive sessions in UK followed by 6 weeks of intensive internet-based structured work. Some candidates would fly in from the Middle East and other countries for the UK-based sessions and then return home, but despite the university liaising with the UKBA it could not indicate a legal way for this to happen. The university decided it could not take the risk of the adverse publicity if it was found to be in breach of the rules

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<sup>188</sup> Data quoted in presentation to Fragomen Group by Jon Simmons, Director for Migration and Border Analysis, Home Office Science, 17 October 2013

- ii. inability to appoint a non-EU external examiner even if s/he were not paid an examination fee
- iii. appointment of a well qualified Reader who stayed a very short time because his wife and children could not obtain visas, being told that UKBA did not accept that they would have enough money on which to live in the UK
- iv. an MSc candidate refused entry as already she already had Masters from China, although this had been obtained in Mandarin
- v. a university that made an offer of appointment to an individual who had been married to a British wife for 20 years and had children born in the UK. Five months on the issue of a visa had not been resolve
- vi. a Nigerian student refused entry. He had sufficient in a bank account when he applied but it had reduced in value due to currency fluctuation
- vii. a student refused because only one month stipend was in his bank account even though the stipend was guaranteed to be paid every month
- viii. queues of international students outside a Central London police station on enrolment day due to the requirement to report to a police station.

All of these, even where they involved staff rather than students, have the potential to generate bad publicity.

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

14. We are unclear how much may be changed in the draft Bill but have four areas of concern. Whatever is in the final Bill it is essential that it is presented and discussed in a mature, positive and pro-immigration context. Unfortunately, given the past five years of discussion around this topic we have little confidence that the current negative presentation style will change.
- i. The introduction of the Health Services Levy is not only an additional negative cost factor but will be interpreted by many potential students as another indicator that the UK does not welcome them. We do not know which Government Department sees this as a source of revenue (Health, Work and Pensions, Treasury?). Whatever benefit is anticipated from the collection of £150 to £200 per annum from each student and dependent should be seen in the context of its potential harm and the contribution of about £5.5B that international students at our universities contribute annually in fees and living costs. Of course, once introduced we would expect any Government to see it as a cash cow that would be increased at rates well above the rate of inflation.
  - ii. The abolition of the right to appeal and its replacement by a scheme of administrative review is also of concern. Since the appeals may well be against original administrative errors, appellants are unlikely to have any confidence in the process. We respectfully suggest that no university would be allowed to have a student appeal system that appeared as undemocratic as this.
  - iii. The proposal that landlords should have to undertake immigration checks seems to be a further piece of unnecessary bureaucracy. *Bona fide* students will already have been through a full checking process. They may be very reluctant to hand over important personal documents to landlords. It is likely to be seen as yet another way in which they are being treated as aliens rather than as welcome additions to our multi-cultural and, until now, increasingly international universities. As an aside we assume that all



UK domiciled students will also have to prove their immigration status to their landlords.

**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?**

15. UKDS members report a wide range of monitoring of international students recruitment, some very detailed, others much less so. Although there appears to have been little specific monitoring with respect to immigration policies, the high targets that some universities have set for non-UK recruitment means that more of them are now developing more rigorous analyses of the success of their activities.
16. At a national level we are unaware of any serious detailed analysis of the impact of immigration policies. This is needed as a matter of urgency, using historical as well as current data but would need to take into account many variables including the changes in rules, the effects of the actions and speeches of politicians and others, the views of current and potential students, the application of the rules at ground level by immigration officials, interviews with university staff with responsibility for recruitment of international students at all levels and the actions of other countries.

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

17. Yes. As well as the issues referred to elsewhere in this response there is much anecdotal evidence that potential students view several other countries as much more welcoming than the UK, appearing to have less bureaucracy with a more positive attitude to allowing students to remain for work after graduation (for example, Australia, Canada, New Zealand, US).
18. A dimension that is often overlooked but which significantly affects the competitiveness of UK HEIs is the influence of the press and other media outlets. In several important countries concerns have been expressed since around 2010. We give a small number of examples from 2013, in the periods when the Coalition had attempted to present a more positive stance.
  - i. Under the headline, 'UK visa curbs putting off Indian students?' the Economic Times of India (May 20, 2012)<sup>189</sup> discussed renewed calls for the government to review curbs on student visas after UK universities reported a significant fall in applications from India. It commented on stiff competition mainly from Canada and Australia to attract international students which had been made greater by changes to the student visa regime in the UK - particularly the closure of the PSW visa. The article mentioned a widely quoted Birmingham University Masters graduate who was using the PSW route to work as a data analyst in the City of London as saying: "As of April the post-study work visa has gone. I was lucky, I applied in 2010. If I would have been in India and had

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<sup>189</sup> [http://articles.economictimes.indiatimes.com/2012-05-20/news/31788384\\_1\\_curbs-on-student-visas-universities-uk-british-universities](http://articles.economictimes.indiatimes.com/2012-05-20/news/31788384_1_curbs-on-student-visas-universities-uk-british-universities)

heard they had stopped the post-study visa then I would not have applied and come here. Any student taking a bank loan can only pay it back if they have a proper job, not a job at a chippy. It's never going to attract students now."

- ii. The Times of India July 30 2013<sup>190</sup> under the headline: 'Migration cap alienates students', specifically blamed the migration cap on the reduction of Indian students going to UK universities. It quoted a list of negative issues that had been found in a survey carried out by YouthSight for Regent's University, London, including the fact that, of the over 500 international students polled, 52% believed that the British government's migration cap made them feel less welcome in the country.
- iii. Even after significant changes were introduced in the Coalition's immigration policies the Deccan Herald of 17 November 2013<sup>191</sup> had a major article under the banner headline, 'Indian Students to the UK: Welcome or not? Universities are wooing Indian students, but the UK Border Agency does not seem to be waiting with open arms to issue visas'. It commented on delays in issuing visas suggesting that; 'mixed signals are playing havoc with young lives' and went on to give the human example of a chemical engineering graduate from Bangalore, ready to leave for London for a Masters degree when he received an SMS alert from the Visa Facilitating Services saying his application documents had been dispatched by courier. However, the following day when the papers arrived he found his visa application had been rejected.
- iv. The Indian press is not alone in presenting an unfortunate impression to potential international students. For example the South China Morning Post (11 November 2013)<sup>192</sup>, rather than reporting on the more positive changes to the UK's immigration rules, concentrated on the fact that there had been a record increase of 21% in Chinese students joining US universities.

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

19. Yes. Universities have put in place detailed support mechanisms. However, the rules are complex and they keep changing. For example in 2011 there were 8 published revisions and 10 in 2012. Fortunately not all directly impinged on HEIs. Unfortunately, there is limited clear national guidance given on implementing changes so each HEI has to decide on its own interpretation. This can lead to a lack of awareness in parts of a university of what is allowed – for example two of our members had staff who advised them that it was impossible for an international student to undertake a sandwich placement in spite of the fact that this is clearly permitted.
20. Of course, the rules do not stop once a visa is gained. Universities are so concerned about monitoring their students that there is at least one university, anxious not to be found to be breaking immigration rules, that has 20 potential contact points that have to be signed off each year for every international research degree student. This is not only a bureaucratic burden, but treats the *bona fide* student as if s/he is about to abscond.

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<sup>190</sup> <http://www.educationtimes.com/article/95/20130730201307301601338406fdc64a6/Migration-cap-alienates-students.html>

<sup>191</sup> <http://www.deccanherald.com/content/32931/indian-students-uk-welcome-not.html>

<sup>192</sup> <http://www.scmp.com/news/world/article/1353647/chinese-students-flock-american-universities>

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

21. We have no quantitative data on this, but potential students clearly believe that this route to work is now next to impossible.

**Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

22. Yes. The effects on certain STEM subjects between 2010 and 2011 were significant with non-EU postgraduate recruitment down by 8%, engineering and technology by 10% and computer science by 14%<sup>iii</sup>. Put into context for individual Faculties and programmes, examples quoted by members of UK Deans of Science included:
- the non-EU entry on one MSc in biosciences over the past five years changing as follows: 100+, 60+, 30+, 10+, 10
  - postgraduate registrations from India in the period before and after withdrawal of the Post-Study Work route with computer science down *ca.* 50% and engineering down *ca.* 65%
  - a Faculty that has already closed two previously successful STEM Masters programmes, with two other under serious threat and a further two needing to be reviewed in respect to their viability. Additionally some collaborations in India have had to be terminated
  - major reductions in the numbers of international candidates in computing/computer science reported by several universities
  - a university, which had been particularly dependent on certain countries, seeing its Indian recruitment drop from around 1,000 in 2009-10 to the lower 100s by 2012-13.

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

23. There are real risks here. Many universities, in recognising the potential for a reduction in UK students at both undergraduate and postgraduate level have developed strategies for significant increases in non-UK students. At a university level any further reduction in anticipated income may soon impact on overall budgets. However, more worrying is the loss of Masters programmes which are taught by some of the most research-active staff, often working in niche areas making them more vulnerable. The loss of revenue can make it difficult to retain such staff. It is possible that this issue has not yet manifested itself because universities will have retained the staff for the REF exercise.
24. Notwithstanding the fact that radical changes in international recruitment make business planning difficult, most STEM Faculties/Departments claim not to have business plans that are heavily dependent on income from international students. However, it is well recognised that the viability of many STEM Masters courses depend on international recruitment, so significant reduction in their recruitment can seriously jeopardise a Faculty's ability to retain a cadre of experts in a particular field, affecting its capability in research as well as teaching.

**In conclusion**

25. We hope that the Committee's report will emphasise that speeches that emphasise that the UK is 'open for business' can be easily neutralised by anti immigration rhetoric and complex and negative immigration policies bureaucratically applied. STEM subjects are by their nature international and it is essential that our STEM borders are kept open.

*20 February 2014*

## Universities UK – Written evidence

### Summary

1. International students studying towards STEM degrees make a significant contribution to the UK's economy through their tuition fees and their spending in local and regional economies. However, they also bolster the UK's research base, have the potential to fill skills shortages, and enrich the academic experience and campus communities for home students. Graduates returning to their home countries build networks of collaboration and goodwill for the UK around the world.
2. Non-EU students disproportionately study STEM subjects at postgraduate level, and make up a significant proportion of students on such courses. In doing so, they help to ensure the viability of STEM courses at UK universities.
3. Universities UK is concerned that the latest statistics from the Higher Education Statistics Agency (HESA), relating to the year 2012–13, shows that for a second successive year, the number of non-EU international students beginning courses of higher education in the UK has declined. This includes a 10% drop over two years in the number of students beginning STEM courses, and a 15% drop in those beginning taught postgraduate STEM courses.
4. The government should do more to support the sector in its efforts to recruit more international students, including those studying STEM subjects, through the development of an achievable plan to increase the number of international students at our universities. This could include greater post-study work opportunities, and projecting more consistently a welcoming message to the international students and staff that make our universities world-class centres of learning.

### Trends in International STEM students

5. International higher education is a sector in which the UK excels. The UK's university sector is second only to the USA in terms of the number of international students it attracts, its share of the international market, and its share of international PhD students. The Department for Business, Innovation and Skills has calculated that international (EU and non-EU) students contributed some £9.1 billion to the UK economy in 2011–12.
6. However, new data shows that the number of international students coming to the UK is falling. According to data from HESA, the total number of non-EU students enrolled on higher education courses in the UK fell in 2012–13 for *the first time* since HESA began gathering this data in 1994–95. There were 2,710 fewer non-EU students enrolled in 2012–13 than in 2011–12, and 3,960 fewer non-EU postgraduate students.

7. Within this, the number of non-EU students *starting* higher education courses in the UK also decreased by 1% between 2011–12 and 2012–13. A decrease was observed in every nation of the UK, and at both undergraduate and postgraduate level. This follows a 0.4% fall the previous year. Of particular concern is the dramatic decline in students from India starting courses in the UK. This fell by 25% in 2012–13, and by a total of 49% over the two years 2010–11 to 2012–13. India is the second largest market for UK higher education. Other key markets seeing declines in 2012–13 included Pakistan (-21%), Canada (-3%), Nigeria (-4%), Saudi Arabia (-6%), and Thailand (-3%).
8. Non-EU students disproportionately enrol on postgraduate STEM courses. Some 59% of non-EU students beginning courses in 2012–13 were studying at postgraduate level, though this represents a slight decrease since 2010–11. In some subject areas, including a number regarded as particularly important to the UK's economic future, non-EU students make up a very large proportion of students. For instance, at taught postgraduate level 48% of engineering and technology students, 48% of computer science students, and 42% of mathematical science students are from outside the EU.
9. However, the number of STEM taught postgraduate students from outside the EU decreased by 24% between 2010–11 and 2012–13 – a drop of some 10,500 students. There have also been (smaller) decreases in the number of UK and EU students enrolled on these courses, but 74% of the overall drop in STEM taught postgraduate students between 2010–11 and 2012–13 is attributable to a drop in non-EU students. One institution with a strong research profile and international brand reported to us decreases in the number of international postgraduate students across seven of the ten STEM subject areas used by HESA.
10. Courses in engineering and technology subjects are particularly popular among students from India. In 2010–11, Indian students made up 18% of all non-EU student entrants in engineering and technology. In 2012–13 this had fallen to 10%. In spite of a slight rise in enrolments from other countries, the total number of non-EU students studying these subjects fell as a result of the sharp decline of students from India. One of our member institutions was unambiguous in saying that reductions in students from India was likely to impact on the viability of their postgraduate STEM courses.
11. Overall, and across all levels, the number of non-EU students starting new courses of study in STEM subjects fell by 10% between 2010–11 and 2012–13.
12. It should be noted that non-EU students do not normally take places on courses that otherwise would be filled by home students. Non-EU students fall outside of limits on home and EU undergraduate student numbers imposed for reasons of budget control by government.
13. Indeed, non-EU students create opportunities for home students to study STEM subjects by ensuring the viability of those courses. This is particularly true at postgraduate level, where the proportion of non-EU students is higher, and in

specialised or developing areas of study. If numbers continue to fall the viability of existing courses could be undermined.

### **Demand for STEM graduates**

14. Successive governments have prioritised STEM subjects, including at higher education level. Efforts have been made to increase the number of students studying STEM subjects, in order to address a widely-perceived skills shortage in these areas.
15. All major political parties advocate some degree of ‘rebalancing’ of the economy away from financial services. Of the eleven sectors identified as part of the government’s industrial strategy, only one (professional and business services) is not heavily reliant on STEM skills. International education is itself identified as a priority sector in the strategy. However, there is a significant skills gap in STEM areas that could hamper efforts to rebalance the economy. The Social Market Foundation has estimated a ‘long-run’ annual deficit of 40,000 STEM graduates based on the existing shape of the economy, before any such rebalancing has occurred.<sup>193</sup>
16. While there are some encouraging signs that enrolment on STEM subjects at both university and at GCSE and A-levels have increased in recent years, it is clear that there is (at least) a short- and medium-term requirement for immigration of STEM graduates. There is therefore a clear economic need for increasing the number of international higher education students in the UK, and for the government to help universities to recruit from overseas. The ability of UK universities to attract STEM students from overseas is an important economic asset.

### **Supporting the UK’s research base**

17. International STEM students are an important pipeline for British academia. Eleven per cent of research and teaching staff in UK universities are from outside of the EU, and this figure is significantly higher in some STEM areas (19% in engineering and technology, for example). 21% of all non-EEA staff that took up posts in 2010–11 were previously students in a UK university. Increasing the number of non-EU STEM students in the UK is likely to have a positive impact on the supply of STEM researchers.

### **A strategy to achieve growth**

18. The government has said, as part of its strategy for international education published in 2013, that growth of 15–20% over five years in overseas higher education students is ‘realistic’. Even this level of growth would likely mean the UK losing significant market share in a global industry that is growing rapidly.<sup>194</sup> There is a disappointing lack of detail in the industrial strategy as to how this level of growth could be

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<sup>193</sup> Social Market Foundation (2013) *In the Balance: the STEM human capital crunch*

<sup>194</sup> UNESCO has estimated that the number of globally mobile students will increase to 7 million in 2020. In 2010, the OECD estimated that there were 4.3 million tertiary-level students enrolled outside of their country of citizenship.  
<http://unesdoc.unesco.org/images/0018/001831/183168e.pdf>

achieved. Given the decline between 2010–11 and 2012–13, a clear ambition to achieve growth is required with cross-government collaboration to achieve the objective of maintaining the UK's world-leading position.

19. We are asking the government for a more detailed strategy aimed at increasing the number of international students at universities in the UK. The Prime Minister's Initiatives for International Education that ran between 1999–2005 and 2006–2011 included recommendations (for both the government and the sector) to make the UK a more attractive destination for international students, as well as targets to increase the number of students and diversify the countries sending students to reduce reliance on particular markets. We would welcome the development of a third 'Prime Minister's Initiative', or a similarly ambitious strategy. There is a continued need to diversify markets: in 2012–13 one in three of all non-EU students starting a course at UK universities was from China. This leaves the UK potentially vulnerable to policy or demographic changes in China.
20. We would recommend that two core strands of such a strategy should be to project a more consistently welcoming image to potential international students, backed by policy stability in the UK, and to introduce more generous post-study work opportunities for graduates.

### **Projecting a welcoming image**

21. We welcome the public statements made by the prime minister, including those made while in India in February 2013 and in China in December 2013, which encouraged international students to study in the UK. The sector, including Universities UK, has worked hard to combat misleading headlines appearing in the international press which give the impression that international students are not welcome in the UK, or that student visas are difficult to obtain.
22. However, these efforts are undermined by frequent changes in government visa policy that have created a perception of suspicion of international students, and by frequently hostile domestic rhetoric. As a result, the government's message that Britain is 'open for business' for international students is not believed in some major markets. Messages intended for a domestic audience can easily be picked up and shared internationally, with unintended consequences.

### **Post-study work**

23. Post-study work opportunities are, for many prospective students, an important part of the overall package considered when deciding where to study. Post-study work allows graduates to earn money to pay off tuition fees, gain experience in their chosen field, and experience life in the UK. Many return home having forged strong professional and personal links in this country that provide long-term 'soft power' benefits for the UK. International graduates also have the potential to benefit the UK economy by filling skills shortages.



24. Before April 2012, non-EU students who had graduated from a UK higher education institution had the right to remain in the UK for two years to work. After this period, a graduate would normally have to seek sponsorship from their employer for a Tier 2 visa. This ‘grace period’ during which graduate-level employment can be sought has been cut to a period of four months following graduation. A visa to work beyond this period will normally require a job with a minimum salary of at least £20,300 per annum. This figure can be higher for some sectors or positions, where it is judged that a higher salary requirement is appropriate. For example, a mechanical engineer must earn a minimum of £24,100, an electrical engineer £23,600 and a design engineer £24,800.<sup>195</sup>
25. PhD graduates can remain for a year following graduation to look for work or establish a business through the Doctorate Extension Scheme, introduced in April 2013. Universities remain the sponsor for the graduate for this year, and contact with the institution must be maintained. This places a significant administrative burden on institutions, and we are unclear as to the purpose or benefits of such continued sponsorship arrangements when the graduate is no longer associated with the institution. We would favour a model that did not rely on sponsorship of graduates by universities.
26. Competitor countries such as the USA, Canada, Australia and Germany are extending their post-study work offer. They are doing so in recognition of the skills that international students can offer their labour markets, and the fact that post-study work opportunities are attractive to a number of potential students. There is evidence that post-study work opportunities are particularly important to potential students from India<sup>196</sup>, who are more likely than many other groups to study postgraduate STEM courses.
27. The latest data from the Destinations of Leavers of Higher Education (DLHE) survey shows that the median salary of graduates from full-time courses<sup>197</sup> (for those graduates in employment) six months after graduation was £20,000.<sup>198</sup> Although the DLHE does not cover non-EU students, it is clear that the Tier 2 minimum salary requirement would be likely to exclude a significant number of non-EU graduates.
28. Although the average graduate premium for STEM subjects is higher than that for non-STEM subjects, this is not always apparent at a very early stage in the careers for a number of subjects. The following table shows salary ranges of STEM graduates six months after graduation.<sup>199</sup>

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<sup>195</sup> Tier 2 Code of Practice, <http://www.ukba.homeoffice.gov.uk/sitecontent/documents/employersandsponsors/pointsbasedsystem/cop-skilled-workers.pdf>

<sup>196</sup> British Council (2013) *Inside India: a new status quo*

<sup>197</sup> The figure for graduates of part-time degrees is higher but it should be noted that (a) non-EU students would not normally be eligible for a visa on the basis of part-time study and (b) part-time study is disproportionately studied by those with substantial existing professional experience and qualifications.

<sup>198</sup> DLHE, 2011–12

<sup>199</sup> DLHE, 2011–12. DLHE respondents in full-time work, UK-domiciled, employment in England only

**Table 1: Salary ranges of STEM graduates six months after graduation**

	Engineering	Physical Sciences	Mathematical Sciences	Computer Sciences	Biological Sciences	STEM	All Subjects
<b>Up to £19,999</b>	21%	53%	32%	35%	71%	33%	47%
<b>£20,000 to £24,999</b>	27%	25%	29%	31%	19%	28%	29%
<b>More than £25,000</b>	52%	22%	39%	34%	10%	39%	25%

29. Current restrictions on post-study work are therefore limiting opportunities for a significant proportion of non-EU STEM graduates to remain in the UK and work beyond four months after graduation. While many will secure jobs at the required salary within four months, many able graduates – including those who will contribute to filling a skills shortage – will fail to do so within this relatively short window. Aside from the loss of the skills of those graduates, the resulting uncertainty as to work prospects undermines attempts to recruit students at a time when competitor countries are expanding, rather than decreasing, post-study work options.
30. There have been particular problems in recent years for students of some STEM subjects that require a period of employment to secure professional registration. For example, the salaries for pre-registration pharmacists in the community sector and opticians are below the £20,300 threshold. A short-term measure has been introduced for students studying to be a pharmacist, allowing these students a Tier 5 visa sponsored by the Royal Pharmaceutical Society under the Pharmacy Professional Sponsorship Scheme. However, this scheme is only temporary and students who graduate from 2016 onwards will not be eligible to apply for a certificate of sponsorship. In the long run, there is no guarantee that non-EU students would be able to complete their pre-registration year in the UK, and this is likely to have a significant impact on the ability of UK universities to recruit students in a field in which we are recognised as world-leading.
31. Universities UK is calling on the government to extend post-study work opportunities for all international graduates of UK universities. The government has taken a step in the right direction by increasing the time during which PhD graduates can stay in the UK to seek work, but we believe that it should go further. This will not only make the UK a more attractive study destination, but will also help the UK economy to retain high-level graduate skills, including in areas of strategic importance such as STEM.

### **Net migration target**

32. We welcome the committee's recommendation in its 2012 report *Higher Education in Science, Technology, Engineering and Maths (STEM)* subjects that higher education students be removed from the net migration target for the purposes of domestic

policy making. We note that the committee is now one of five committees (both Commons and Lords) to have made a similar recommendation. We are not calling on government to cease *reporting* these figures to the UN, which they are obliged to do, but rather to exclude students from efforts to drive down net migration.

### **About Universities UK**

33. Universities UK is the representative organisation for the UK's universities. Founded in 1918, its mission is to be the definitive voice for all universities in the UK, providing high quality leadership and support to its members to promote a successful and diverse higher education sector. With 133 members and offices in London, Cardiff and Edinburgh, it promotes the strength and success of UK universities nationally and internationally.

*20 February 2014*

## Universities UK – Supplementary written evidence

*Letter from Professor Colin Riordan, Chair, Universities UK International Policy Network*

Thank you for the opportunity to provide oral evidence to you and your committee on 4 March, as part of your inquiry into international STEM students.

The following information, which I provide as supplementary evidence for your enquiry, provides further detail in response to a question from Lord Willis of Knaresborough about recommendations the committee could make to the government that would encourage international STEM students to the UK (Question 40 of evidence session 3). Also included with this letter as an annex is a table setting out declines in particular STEM subjects among non-EU students.

As the panel I think made clear in that session, expanding post study work opportunities would be an extremely important step towards making the UK a more attractive student destination. Current arrangements are too restrictive, and there is a perception that the right to stay and work for a period after study has been removed. While this is not strictly true, current requirements make the UK offer much less attractive than competitor's, where post study work opportunities are much clearer. Our competitors do not require graduates to secure a job either during their studies or in a short window after graduation, or meet minimum salary requirements. Our written evidence demonstrates that these salary requirements are not always achievable for new graduates at a very early stage in their career, even those who have STEM-related skills and knowledge which is in demand in the UK labour market.

Secondly, we would welcome a period of policy stability and consistently positive messages from the government on this issue. Universities work hard to dispel myths, both individually and collectively – for example through Universities UK's international press briefings and the work of the UK Higher Education International Unit. We welcome the more positive messages from government, including the Prime Minister, that the UK is open to genuine students. However, the message is undermined by consistent policy changes, most recently in the form of the Immigration Bill.

Thirdly, both of the above steps should take place in the context of a clear and detailed strategy on international higher education. The current strategy on international education is welcome, but lacks targets or details as to how to growth could be achieved in terms of international student numbers. By contrast, competitor countries have ambitious targets and detailed strategies. We would welcome numerical targets for growth, and targeted investment to support marketing efforts, international mobility – including outward mobility of UK students – and research collaboration.

*20 March 2014*

Annex: Non-EU students enrolled in HEIs by STEM subject by year

Non-EU students						Annual Changes		
	2009-10	2010-11	2011-12	2012-13		2010-11	2011-12	2012-13
Engineering & technology	19,405	20,625	19,225	19,165		6%	-7%	0%
Computer science	10,590	10,165	7,630	6,765		-4%	-25%	-11%
Subjects allied to medicine	7,745	8,315	7,020	6,200		7%	-16%	-12%
Biological sciences	4,550	5,005	5,150	5,140		10%	3%	0%
Physical sciences	3,645	4,005	3,965	4,170		10%	-1%	5%
Architecture, building & planning	3,535	4,000	4,045	4,375		13%	1%	8%
Medicine & dentistry	2,940	3,060	3,215	3,025		4%	5%	-6%
Mathematical sciences	2,515	2,610	2,850	3,050		4%	9%	7%
Agriculture & related subjects	820	780	835	795		-5%	7%	-5%
Veterinary science	205	250	285	220		22%	14%	-23%
<b>STEM</b>	<b>55,945</b>	<b>58,815</b>	<b>54,210</b>	<b>52,905</b>		<b>5%</b>	<b>-8%</b>	<b>-2%</b>

UUK, 20 March 2014

## University of Birmingham – Written evidence

The following is a summary of responses to questions posed.

- 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?

*There has been a reduction in terms of applications from Nigeria, India, Pakistan, Iraq, Saudi and Iran and this will have led to less international diversity in STEM areas.*

- 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?

*Our ISB responses do not indicate a drop in satisfaction with visa advice services at the University, ISB and similar processes indicate the experience of those who have already traversed the visa system and arrived in the UK. For all applicants, meeting visa application criteria can be challenging and the University has increased its levels of pre-arrival support for students outside the UK to ensure that the rules and requirements are clear and that support is available throughout the process. This, together with the introduction and implementation of credibility interviews, may make the UK appear as reluctant to have international students.*

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

*The removal of options for working after studies has been detrimental. We acknowledge the introduction of Tier 4 (Doctorate Extension Scheme), however, the Tier 1 (Post Study Work) route University was open to all degree graduates and offered opportunities for obtaining vital work experience in the UK after studies. DES will attract applicants but at small number compared to previous schemes. While this may support the provision of attractive migrant data, it does not support the needs of students coming to the UK who are investing time and finances in studying and missing the opportunity to test their skills in the work place in a global context.*

- What impact might the provisions in the Immigration Bill currently before Parliament have on international STEM students\*?

*It is difficult to respond to this in a way that will effectively reflect the experiences STEM students in particular – it affects all students. Students from more fortunate backgrounds may feel little or no impact of the changes, however, it is likely that a greater number of applicants will be affected. The Bill is introducing a broad range of changes that will impact legally and financially meaning the detriment could be more widely felt than usual after changes:*

NHS charges – the current proposal is a charge of approximately £250.00 per person for each year their visa is granted. Given the substantial financial input of international students to the sector and the regions where they live, we would recommend that students are not charged or at least charged a lesser amount. In attracting excellent Doctorate students we are attracting mature adults who frequently have (young) families who naturally wish to stay together and the charges could impose additional financial hardship on genuine students wishing to bring their dependants with them to the UK (and extend their stay as we are aware that charges will increase meaning in-country extensions may be prohibitive). This will make the UK less attractive in overall calculations for applicants;

Landlord obligations – this has the potential to create misunderstandings on a level that will alienate international students. It will create problems for diligent students, and their families, who wish to make reasonable prior arrangements before coming to the UK. Likewise, parents will feel less assured of the wellbeing of their children when they arrive in the UK especially if their children could find themselves potentially homeless. Students with families frequently plan in advance to ensure that they have a home, close to a school and local amenities. The proposed changes create further barriers and obstacles and do not make the UK feel like a reasonable destination of choice;

Abolition of appeals – this poses a threat to students already in the UK and could have a critical impact on a students' ability to remain in the UK to continue their studies. Some students may find that they need to defer their studies. In some cases, where sponsorship is involved and/or the student has given up employment in their home country, the detriment can be significant. The abolition of appeals refuses to mitigate for occasions where the refusal is not the fault of the student but ill-informed decision making on the part of the Home Office case worker;

Criminality – it is difficult to assess the impact of this. It will certainly act as a deterrent for any student choosing to come to the UK if they need to disclose information of this nature, regardless of whether it would result in a refusal or not.

The changes in the Bill do not support the student experience nor do they promote the UK as an open and welcoming destination of choice. We may understand (or at the very least be aware of) the rationale underpinning these changes, but overseas visitors will merely observe these as difficulties, challenges and uncertainties.

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?

We note the concerns of any students commenting on immigration policy and monitor impact overseas and in-country and take steps to adjust support mechanisms. It is likely that there is not yet comprehensive data to provide a reliable impact assessment of this nature. This is primarily because, since the introduction of PBS, the Sector has not had a period of time when we have not been responding to one or more changes in

*immigration policy and this makes it difficult to strategically collect data as the measurable criteria is continually changing.*

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

*It would be reasonable to suggest that the UK has lost a market share to competitor nations such as the USA and Australia, where immigration is perceived to be more transparent and consistent. As noted above, immigration policy changes annually – universities and their students have adjusted to a change and then more are introduced. This does not instil a sense of ‘security’ for all concerned. Canada has introduced a 3 year post study work offer, with option for citizenship after completion; the Republic of Ireland offers a one year PSW for high achieving students. Many South East Asian and European countries are introducing degree programmes in English and are at an advantage in terms of costs and perception of immigration and employability.*

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

*The Home Office provides guidance for students. Relevant areas (normal International Student Support offices) within HEIs translate the guidance into plain English for use by international students. The same support offices provide summaries of changes to key contact points (e.g. admissions for changes such as the introduction of the 5 year cap). HEIs invest significant resources in supporting the international student experience from pre-arrival to conclusion of studies.*

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

*Given the comprehensive removal of immigration routes permitting working in the UK without a work permit/Tier 2 CoS, it is reasonable to conclude that STEM graduates find it difficult to secure employment after their studies.*

- Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?

*Policy jeopardises the Sectors ability to recruit across levels and subjects.*

- 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

*Immigration policy is driven by Government targets aimed at reducing net migration. Media representation typically is of migrants as being abusers of the visa and public funds systems. Immigration policy, together with unsympathetic media reporting does not reflect the needs of the Sector and genuine students but is more a form of public opinion appeasement. Due to the obligations imposed on Highly Trusted Sponsor*



*Universities, more data is available on the 'visa/academic journey' of international students – better, more reliable, statistics are provided by diligent Universities resulting in the student visa routes being an easy target for reform and change. Furthermore, the Sector frequently learns of changes when they are fait accompli. The remarkable reputation of UK Higher Education at a global level making us a destination of choice currently exceeds the potential reputational damage being done by immigration policy and while this remains so, institutions will continue to attract the best and brightest international students.*

*(\*The Immigration Bill currently before the Lords covers: NHS charges, Landlord obligations; Abolition of appeals against refusal of visa (and the introduction of admin review in the UK and disclosure of criminality (and refusal of visa))*

20 February 2014

## University of Leicester – Written evidence

### Authors:

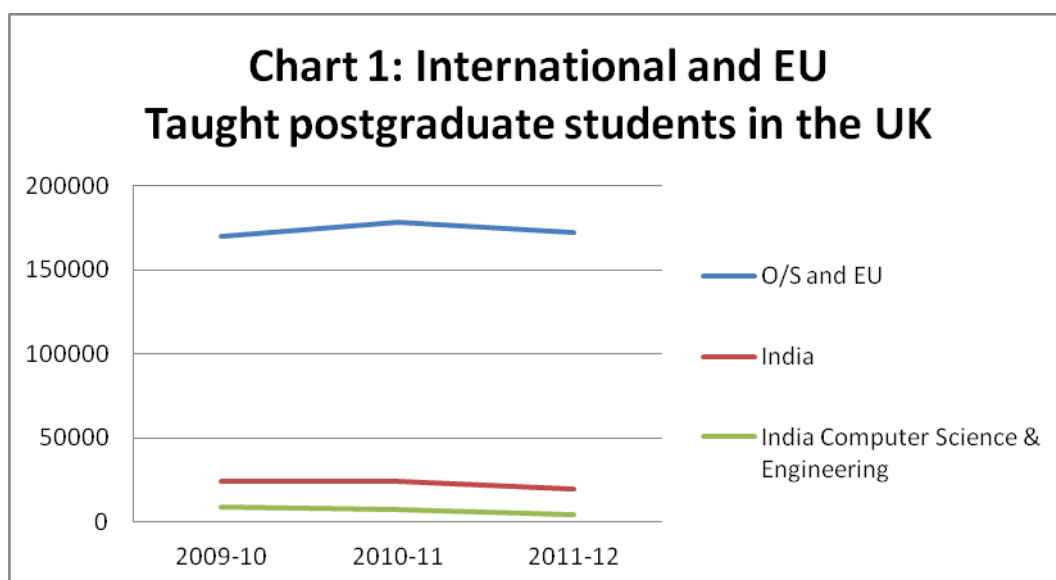
*Professor Martin Barstow – Pro-Vice-Chancellor, Head of the College of Science and Engineering*

*Professor David Wynforf-Thoma – Pro-Vice-Chancellor, Head of the College of Medicine, Biological Science and Psychology*

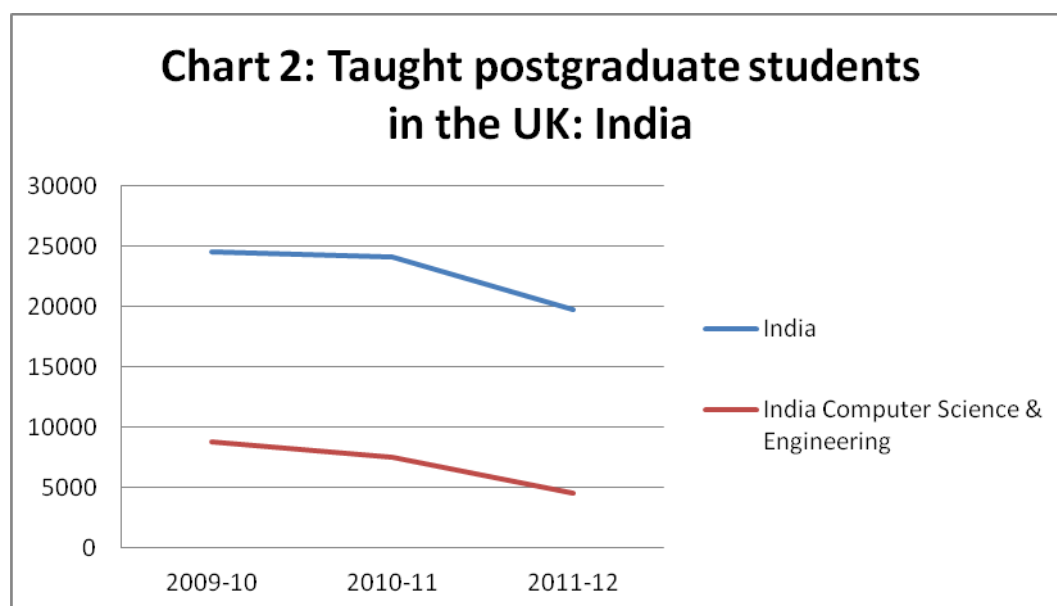
*Suzanne Alexander – Director, International Office*

### **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?**

At national level HESA statistics show a downturn in registrations of International/EU taught Master's (PGT) students registering in UK HEIs (see **Chart 1** below).



The pattern of decline is most pronounced in regard to students from India, and the trend is especially evident in the previously popular STEM subject areas of Computer Science and Engineering, where numbers have almost halved between 2009-10 and 2011-12 (see **Chart 2** below).



HESA's recently-published headline statistics for 2012-13 report a continuing decline in overall Indian student numbers (a further 25%; detailed breakdowns by level and subject are not yet available).

A number of factors may have had an impact on these trends, and it is never easy to separate the individual components and their respective influence, and prove direct impact; rather there is a cumulative impact, but where some factors will be more influential than others. The importance and impact of these different factors will also vary by market, level of study and subject discipline.

• **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?**

Prospective international students (and/or their parents/sponsors) will make a more or less detailed assessment of the expected return on investment of studying overseas, and may also make comparisons between study destinations. In addition to immigration-related matters, other contributory factors may include: security concerns (eg murder of Indian student in Salford; reports of social unrest in British cities); economic factors (eg unfavourable exchange rates, bank interest rates on loans); buoyant domestic graduate employment opportunities; negative news of the UK education sector (eg HE funding cuts; reports referring to declining standards). All of these may mean that the case for study in the UK may be less compelling, and the press (especially in India) and other media lose no time in fuelling these perceptions.

For Master's students, the primary reasons for choosing to make and overseas Master's degree is personal and professional development including career progression. The attractiveness of the Master's degree is enhanced to local employers if it is complemented by work experience, and not limited to an academic qualification. Prospective Master's students look for the maximum return on their investment, and the value of a Master's degree is diminished without the opportunity to gain overseas work experience.

For Indian students, the majority of whom are self-funded, calculation of the potential return on investment plays a significant part in the decision to study overseas. In many cases students are reliant on bank loans for their studies, and these are mostly secured on family property. This is therefore a major decision. Interest rates are high, and while jobs for qualified Master's graduates can be secured, far lower salaries payable locally mean that the loans cannot be repaid as quickly as when employment can be found in the UK. This is an additional calculation and concern for Indian students whose family property is the loan security. Compounded by high loan interest rates and the declining value of the rupee against sterling in the last year, the ROI calculation looks less attractive than ever. The decision on study overseas also leads to a comparison with potential destinations other than the UK. While the one-year Master's programmes typically offered in the UK are attractive (in terms of opportunity costs compared with the two-year programmes in other countries, the lack of accessible post-study work opportunities tips the balance in favour of the US, Canada and elsewhere, where such opportunities are far greater and the perceptions are that these countries are far more welcoming than the UK with its emphasis on restrictions and barriers. While post-study work is not impossible it is certainly not straightforward to secure immediately after graduation employment which commands the sort of salary level specified, while employers may be unsure of the applicable legislation and unwilling to risk making what could be a costly mistake in regard to the immigration rules.

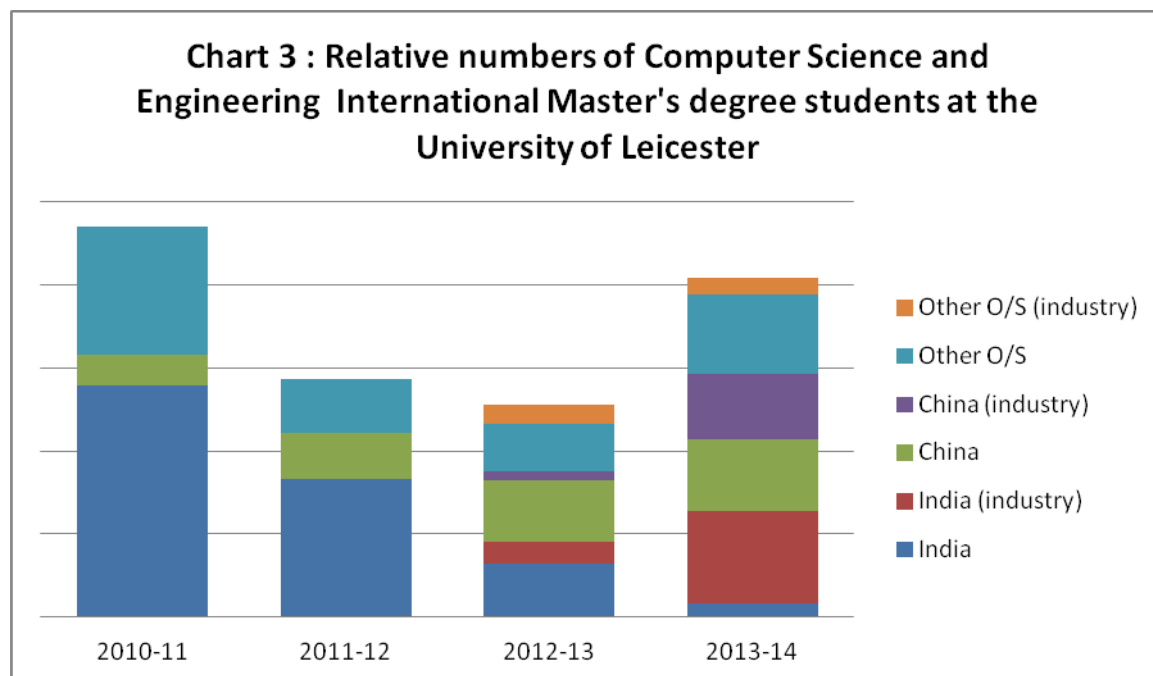
In the case of PhDs, the impact is less evident. Most PhD students are sponsored and it is often a condition imposed by their government or other funding body that students return to their home country on completion of their studies. They may be subject to a bond or heavy financial penalty if they do not comply. It is therefore not only unattractive but also not permissible for students to take advantage of the concession made in regard to PhD graduates and post-study work.

At Bachelor's level, again the impact is less marked. Students are either sponsored, in which case the issue of post-study work does not arise, as sponsors expect students to return home as in the case of PhD students or, if self-funded, students will typically come from a family background wealthy enough to pay for three or four years' study in the UK, and where post-study work entitlement is unlikely to be a decisive factor.

**• Which UK immigration policies are affecting international STEM students and what issues are they causing?**

The most significant policies affecting international STEM students are the removal of the post-study work visa, coupled with a generally negative perception of the UK as an attractive and welcoming destination for study. All the emphasis is on the hurdles and barriers posed by immigration rules and the difficulty of obtaining a visa, rather than on the benefits that a UK degree will have in regard to global recognition, employability and career progression. In regard to the relative importance of immigration-related matters, and especially work experience opportunities, in student decision-making, at the University of Leicester we do have some evidence that the introduction of new Master's programmes incorporating an industrial placement in their degree structure has led to an upturn in demand from the previous trend of declining registrations in these subject areas. **Chart 3** below shows how

the introduction of this option has led to a significant increase in registrations, especially from India, and also from China, and that the “with industry” option has been the choice of 88% of our Indian, and 48% of our Chinese, students in Computer Science and Engineering registering in October 2013.



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

As mentioned above it is difficult to say that a single factor is solely responsible for a student's decision, but the continuous accumulation of negative factors reinforce perceptions of the UK as unattractive and unwelcoming to international students. The message about the “brightest and best” is not necessarily helpful, as many students would not regard themselves as in this category. We typically require a minimum achievement of second class honours (or equivalent) as an entry requirement for a Master's degree - not first class honours which would be associated with a phrase like “brightest and best”, so this message, rather than encouraging students to see themselves included in those welcome to study in the UK, are more likely to feel excluded by this elitism, as they do not believe that they fall into this category.

• **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?**

Awareness-raising campaigns and lobbying activities are being undertaken by, amongst others, the Royal Academy of Engineering, the Engineering Professors' Council and the Campaign for Science and Engineering (<http://sciencecampaign.org.uk/>), which has been active in influencing immigration policy to the benefit of the Science and Engineering community. Its campaign began in earnest in 2010 with a letter to *The Times*, signed by ten

Nobel laureates calling for the UK not to isolate itself from the research world via the non-EU migrant cap.

**• Do reforms to immigration policy since 2010 limit the competitiveness of UK higher education institutions in attracting international STEM students?**

Of course. It is not just what we do, but what competitor nations do, which in many cases demonstrate the exact opposite of the UK's policies in regard to a welcoming attitude to international students, as well as opportunities to gain work experience.

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

Messages at government level are perceived to be essentially negative: barriers, obstacles, the introduction of new and increased charges, and the representation of the student visa as an ultimate achievement, rather than the real objective of being offered a place on a high quality degree programme and gaining a degree which will be recognised by employers and lead to employment and career progression. The emphasis on the visa detracts from the real message about UK qualifications and institutions. Consequently much of higher education institutions' work is focussed on ensuring that those messages are not lost in a morass of immigration negativity.

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

The rules are not straightforward to understand and employers are worried about the implications of making a mistake in regard to the eligibility for employment of an international graduate. For many employers it is simply not worth taking the risk of employing a possibly ineligible graduate.

**• Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

Master's degree recruitment is always volatile. Unlike a Bachelor's degree which is seen as a pre-requisite for many careers, for most students a Master's degree is a "discretionary purchase". It is desirable, but not essential, and the decision may easily be delayed or deferred. The increasing cost of undergraduate education is already leading to declining number of home students seeking full-time Masters degrees. There is very limited funding available and graduates are not convinced that the investment will lead to a significantly worthwhile return at a time when they have already built up student debt. Master's programmes are therefore especially vulnerable to changing market conditions, and this does lead to increasing concerns about the longer-term viability of some STEM subject Masters' degree programmes in our portfolio.

**• 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?**

UK HEIs are working extremely hard to continue to present to international markets the benefits of studying in the UK and achieving a recognised degree from a well-regarded institution. We do this despite the many negative (passive, rather than active, in most cases) messages emanating from government. This is becoming increasingly challenging, and competitor nations are able to present far more compelling messages about opportunities to gain greater and more direct benefits from their studies. The UK has a long history of receiving international students and many loyal alumni of our universities. We have a less attractive offer, and the market environment is more and more competitive. We are losing market share not only to our traditional competitors (USA, Australia, Canada), but also to other nations in Europe and Asia making greater efforts both to attract students and to retain them in the workforce, especially in STEM subjects where there are shortages of skilled graduates.

*20 February 2014*

## University of Oxford – Written evidence

*Author: James Tibbert, Head of Student Information and Immigration*

Our response to the questions below includes some comments that could also be equally applied to students in non-STEM subjects. For STEM students our primary concerns are focussed around post study work opportunities, the frequent changes to immigration rules and student perceptions of studying in the UK, changes included in the Immigration Bill and some concerns about the ATAS process.

### ***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. We have responded separately to the Russell Group survey on numbers and demographics and would refer to their findings which will be submitted to the Committee and provide a broader overview.
2. In the last few years, we have received feedback from prospective students, current students and academic staff about the frequent changes in immigration policy being perceived negatively by applicants and being a deterrent to studying in the UK. However, we have not noticed any significant falls in application numbers or changes in demographic patterns at our University but we do know that some students are disappointed by the lack of post study work opportunities and what they perceive to be an overly complicated visa application process. We would be keen to see data on whether the places won by students who subsequently decide to study elsewhere are filled by students who do not prioritise the chance to work in the UK after their studies.

### ***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?***

3. This may need to be considered on a sector-wide basis and take into account student feedback and opinion rather than just quantitative data. We would suggest this could be determined by analysing UKCISA or UUK surveys or conducting a further detailed study.
4. Feedback from students in our internal surveys and through our Careers Office showed that students were clearly very dissatisfied with the closure of the Post Study Work scheme in 2012. This was especially the case for students who had chosen the UK as a study destination on the basis of post-study work opportunities who saw the scheme withdrawn just as they were due to graduate. Students were also anxious about the frequent immigration rule changes and many students felt that the UK was becoming less of a welcoming study destination. They questioned how a degree level student, committed to spending several years in the UK with limited working rights during study and close attendance monitoring by the University, could be perceived as a risk to immigration policy aims.



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

5. The cumulative and frequent immigration rule changes since 2011 have made the visa application process unduly complicated and ambiguous for students as policy guidance has not always been clear or precise. We welcome the recent work carried out by the Home Office to simplify the guidance and provide more case study examples for students and institutions.
6. The closure of the Post Study Work scheme is the issue of most immediate concern. There have been some attempts to address this deficit of opportunity with the introduction of the Graduate Entrepreneur scheme for those with a business idea they wish to develop, and the Doctorate Extension scheme for DPhil students to remain and seek work. However, these schemes are still much more limited in scope than the previous Post Study Work scheme and they offer very few opportunities for postgraduate taught students or undergraduate students.
7. The criteria for the Graduate Entrepreneur visa were initially too restrictive and have since been revised by the Home Office. The Doctorate Extension scheme continues to cause us, and other institutions, administrative challenges as a CAS number for a visa extension must be issued and used up to 60 days before the student completes their DPhil course. Due to the nature of doctoral studies, it is not easy to determine an exact completion date and some students have been deterred from applying, or assumed they were not eligible because of the complexity of the requirements.
8. The maximum 5/6 year time limit on study at undergraduate and postgraduate level initially caused us some initial difficulties as our MScRes degree was not then exempt from the time limit (only DPhil studies). The complexity of the rule in determining how many years to include in the time limit calculation and which courses are exempt still confuses some applicants and may be a deterrent to some students considering offers from overseas institutions.
9. The academic progression requirement that students need to progress to a higher degree based on the relevant NQF level, to extend a visa or start a new course, seems an unnecessary interference in academic judgement by the Home Office. A recent case study example at Oxford involved a student studying on a DPhil course who transferred to an MLitt degree (a lower NQF level) and was refused a visa extension despite his research and subject being in the same area. The decision did not take into account the nature of doctoral studies and how the student was moving between course levels. The student won an appeal with help from university immigration advisers.
10. In Summer 2013 we experienced delays of up to 30 days in the processing of ATAS applications, which meant that a few students were late starting their studies. We are concerned that delays might reappear when application rates increase over the summer period. We understand that the FCO cannot disclose reasons for refusal, but

this does not help us to advise the student, and this lack of information has caused some of our academics to challenge these decisions when they are attempting to bring in a world class research student and have other students studying in the same field. We would appreciate more transparency here.

11. Since the introduction of online applications, there has been some improvement in visa extension application processing times, and we hope that this can be sustained. Students need to be able to travel at short notice to attend or present at conferences or seminars overseas and sometimes to travel home for personal reasons. It is not acceptable that their passport should be unavailable for such a long period whilst the visa extension application is being processed, and it seems frustrating in this age of global interconnectedness that Home Office caseworkers and Managers appear not to understand the importance of students attending such academic events.

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

12. The removal of the right of appeal for visa extension applications in the UK and its replacement by administrative review is a matter of major concern. We support UKVI moves to offer a fast-track caseworker basic error correction service, and we would like to see this provision become permanent because of the constant high number of basic caseworker errors. We also support the direction of Administrative Review, which should lead to quicker second opinions on application refusals.
13. Students should also be offered an independent appeal point, because the contradiction between some of the immigration rules and application of the policy guidance by caseworkers, and the ambiguity of some of the new rules, means that an independent check is crucial to maintaining untainted oversight. We know from the overseas Administrative Review process, that those undertaking the reviews face tight turnaround targets and sometimes uphold decisions by making the same oversights as the Entry Clearance Officer. Ending the referral process at the stage of Administrative Review will jeopardise the impartiality and robustness of application assessments that are made upon appeal.
14. The requirement for private landlords to check the immigration status of a tenant is fraught with complications because landlords often do not have the resources or detailed knowledge of immigration rules that employers and universities have acquired. This adds to the perception of the UK being an unwelcoming study destination and could lead to landlords discriminating against international students, to avoid the burden of dealing with immigration checks. We know that non-academic factors can be very influential in a student's decision on where to study, and we know that competitor overseas HEIs are highlighting shortcomings of the UK system to entice students. While Oxford's applicant and student numbers are not down overall, we must look at whether the UK is still attracting the best and the brightest, which is a vital consideration for our economic development.

15. The proposal to charge international students for NHS care up-front for the duration of their course could add substantially to the costs before arrival e.g. £150 a year for a four year course (£600), in addition to the visa application fee of £310 (from April 2014) and associated costs e.g. several trips to a visa processing centre would mean some applicants will be paying nearly £1,000 before they arrive in the UK. This could be particularly problematic for scholarship holders, or students from countries with an adverse exchange rate or low income differential.

***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?***

16. We would refer to sector wide surveys such as UKCISA or UUK which look at qualitative and quantitative responses and the work of the Migration Observatory in Oxford.

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

17. The cumulative and frequent changes to immigration policy can create a negative impression of the UK as a welcoming study destination that persists for several years after changes were introduced. Retrospective changes such as including any previous time spent in the UK towards the time limit cap for a visa also create a sense of distrust and apprehension for those about to commit to spending several years in the UK. Students have voiced concerns about their ability to complete their future course or extend for another subsequent course before making a commitment to come to the UK.
18. We have seen our competitors in Australia, USA and Canada expand options for working after studies in recent years which makes the UK seem less attractive as a study destination. Australia has also recently simplified the visa application process for students, through the streamlined visa processing (SVP) system, which means that all university students benefit from a quicker processing time and are not required to submit as many supporting documents for a visa application.

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

19. Yes, if sufficient notice and clarity on changes is provided but it is important to consider the annual planning cycle of recruitment for higher education institutions. Courses are usually marketed and publicised a year in advance and offers can be made 12 months to 6 months before the course start date. If changes occur between the offer stage and the course start date it can be especially frustrating and problematic for the applicant and higher education institution.

***Are international STEM graduates finding it difficult to pursue employment in the UK after***

***completing their studies at higher education institutions?***

20. The closure of the Post Study Work scheme has made it more difficult for students to find employment after studies and whilst the two new post study work schemes (Graduate Entrepreneur and Doctorate Extension scheme) have been welcomed they still do not address the shortfall in opportunities. There is also a short timeframe between students completing their studies and their current visa expiring (two to four months) which means they may not have sufficient time to secure a job offer and apply for a visa. This was previously not an issue under the Post Study Work scheme and is not addressed by the two new schemes.
21. Many students and employers are not aware that students who have completed a degree in the UK can apply for a Tier 2 visa without needing to meet the resident labour market test and be excluded from the quota on Tier 2 applications. It would help if this work route had an identifiable name and was advertised more clearly. The minimum salary requirement can also be an issue for those on some postdoctoral research projects or working in the voluntary sector.
22. We would also like to note the findings from an Institute of Directors survey in 2012 that found that '80% of members believed that educating international students in the UK helps British business maintain professional and global links with the graduates even after they have returned home'. These links are also crucially important for the University in collaborative global research and teaching, and in strengthening alumni relations.

***Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?***

23. The University has recently been investigating the visa issues raised by the introduction of some new doctoral training centre programmes that will involve periods of research at different UK institutions. This is complicated by the requirement to hold a visa at one designated university and overall attendance monitoring requirements. There are also further issues raised by trying to offer contiguous Masters to PhD programmes that may require several visa applications.

***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?***

24. We do not envisage a fall in numbers at our University, but we remain concerned at the possibility of the best and brightest students taking up places at overseas institutions because of the perceived complexity and rigidity of the UK student immigration system.

19 February 2014

## University of Sheffield – Written evidence

### STEM Consultation

*Author: Thomas R Rhodes, Head of the International Relations Office, University of Sheffield*

1. At the University of Sheffield there has been no significant change in overall international student numbers. We have experienced a dramatic decline in the numbers recruited from the Indian Subcontinent but we have been successful in off-setting the decline with recruitment from other markets (particularly China). It is extremely difficult to demonstrate any causal relationship between changes to immigration policies and changes in recruitment patterns and we do not yet have evidence to suggest that STEM subjects are being adversely affected.

2. We have considerable internal anecdotal evidence that students from the Indian Subcontinent perceive the UK as unwelcoming and this has been more harmful than the reality of the policy changes. Given the large proportion of Indian students who come to study STEM subjects and the significant contribution they make to the academic and cultural vibrancy of our University, these perceptions are most unfortunate. Despite pronouncements from Government that there are no limits to the numbers of visas available to suitably qualified Indian students, their inclusion in the Government's immigration targets gives a far less positive message and we very much hope that the changes to immigration rules will be more effectively communicated and systems and procedures streamlined.

3. We do have concerns regarding the impact of the five year limit on degree level studies on STEM subject students. Many of our overseas students undertake a foundation programme of up to a year to enhance their language and learning skills. This together with a typical four year (intercolated) undergraduate MEng or MSc take them to the maximum entitlement. As we look to enhance our offer through the provision of a 'year in industry', we would not be able to offer this opportunity to many overseas applicants. This is impacting on our recruitment activity and is also likely to disadvantage international STEM students who wish to undertake post study employment given the trend for employers to use industrial placements as a precursor to employment. We also offer three year Bachelors degrees with a year in industry and the five year limit will impact on our competitiveness when seeking to recruit these STEM students to Masters degrees.

4. Science and Engineering courses are those that are most affected by the Academic Technology Approval Scheme requirements. While most of our academic and support staff are able to navigate the process of registration successfully, a number of our students have expressed frustration at the requirement to re-register every six months. There are examples of delays in issuing ATAS at crucial times of the year and this adds to the administrative burden upon staff as they spend time advising students and chasing responses from the authorities.

*15 February 2014*

## University of Sheffield Students' Union – Written evidence

### International STEM students

#### 1. Introduction

2. The University of Sheffield Students' Union exists to provide support, representation, facilities, services, entertainment and activities to students studying at the University of Sheffield.
3. It has been rated the best Students' Union in the UK in the Times Higher Education's Student Experience Survey for the past 3 years running. It has also been awarded Gold in the national Student's Union Evaluation Initiative.
4. The organisation is run for students by students, with eight Students' Union Officers elected annually to direct it and represent its students. The Students' Union offers the opportunity for students to get involved and make their issues and suggestions heard – a collective voice of 24,000 people.
5. We directly represent just over 6000 non European Economic Area students who comprise about 24% of our total student population. We have over 130 nationalities here at Sheffield with China, Malaysia, India, Nigeria and Hong Kong accounting for 60% of our non EEA international students. All of our students benefit from learning and living together in a culturally diverse campus and it is these skills and experiences which are highly sought after by graduate employers.<sup>200</sup> We are concerned that a combination of immigration rule changes particularly around rights to work has made the UK a less attractive study destination for international students which will in turn impact on the diversity of our campuses and the internationalisation efforts on campus.
6. As a Russell Group university the numbers of international students studying at postgraduate level particularly doing PhDs are extremely important to the overall high quality international experience for all our students. At present about 46% of our postgraduates come from overseas and we are concerned that these proposals may deter such high quality students from choosing the UK as a destination to study.
7. The national economic contribution of all international students is cited at around £17.5bn<sup>201</sup> and here in Sheffield, a recent independent research report conducted by Oxford Economics<sup>202</sup> found that the net economic contribution to the Sheffield economy was £120.3 million. This figure assumes an average of £6905 per capita consumption of public services including health and education.

#### 8. Key issues affecting STEM students

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<sup>200</sup> *Global Graduates, Global Graduates into Global Leaders*, November 2011, Council for Industry and Higher Education

<sup>201</sup> <http://news.bis.gov.uk/Press-Releases/New-push-to-grow-UK-s-17-5-billion-education-exports-industry-690a3.aspx>

<sup>202</sup> *The Economic Costs and Benefits of International Students*, January 2013, Oxford Economics

9. STEM international students account for over 21% of our total international student population. Whilst the numbers of international STEM students at Undergraduate and Taught Masters levels are increasing there has been a slight fall in recruitment at Postgraduate Research level from 2009-2013. This of course could be due to many factors including immigration policies. However, what is clear is that world-class departments such as Automatic Control and Systems Engineering at the University of Sheffield would simply be unable to function without our international students<sup>203</sup> and also international staff many of whom may have been educated within the UK.
10. We are also concerned that even where efforts are being made to streamline the UK visa system to ensure that genuine students are able to apply for and enter the UK to study, these are being overshadowed by the very negative narrative on immigration. STEM international students suffer as much as any other international student from policies such as the removal of Post Study Work (April 2012) and the target of reducing net migration from 'hundreds of thousands to tens of thousands'.
11. Our staff at the Student Advice Centre support international students to stay in the UK after their studies to work in highly skilled graduate level jobs. Whilst the changes to Tier 2 introduced after the abolition of Post Study Work in April 2012 are to be welcomed, there is still a real concern that the UK is losing the contribution of many of our talented students due to the removal of the PSW. This was a particularly good scheme as it enabled students to spend up to two years post-graduation in the UK to gain work experience and then to move into more specialist positions which cannot be filled wholly by the UK/EU labour market.
12. We also discuss some of the impacts of the Immigration Bill on our general international student population (see below). There is no doubt that these proposals if implemented could seriously impact on the ability of UK based institutions to attract 'the brightest and the best'.

### **13. Impact of the Immigration Bill on our international students**

14. Over the past two months Sheffield Students' Union has been consulting with our students regarding the proposed changes laid out in the Immigration Bill which stand to affect the University's international student population.<sup>204</sup> This survey has highlighted concerns in relation to the introduction of landlord checks; charges for NHS and removal of the right of appeal. Taken together the proposals in the Immigration Bill may deter future students from outside the EU from choosing the UK as a study destination. In the words of one of our postgraduate students:
15. *"Today if I had to choose again I would NOT come to UK, not because the country, but because of the impression that they do [it] just for money. [In comparison] France and*

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<sup>203</sup> International students in the Dept for Automatic Control & Systems Engineering account for 73% of all students at UG, 97% at PGT and 72% at PgR level. (Data at 01/12/13, U of S )

<sup>204</sup> Immigration Bill Survey – 1251 students took part between November 2013 and January 2014

*Germany [offer] Postgrad study [which] is really cheap and with quality."* International student, University of Sheffield

16. When asked about charging for healthcare, **77% of international students said that £200 per year would be either "unaffordable" or "very unaffordable"**.

17. *"International students already pay grossly unfair fees that rise every single year, they don't need additional financial pressure along with all the other stress that accompanies being an overseas student living away from home"*. International student, University of Sheffield

18. International students already face difficulties in securing accommodation and are **often made to pay large fees and advance rent payments**. This bill may result in landlords/agents refusing to even consider international students as tenants or charge additional fees to cover the extra administration costs. In the student sector, tenancies are entered into often months in advance of the actual tenancy start date. International students may not be able to prove their immigration status that far in advance and so would be prevented from signing up for properties with their friends who are home students or miss out on the best accommodation.

19. Sheffield Students' Union believe this proposal will affect **all** students whether home or international as landlords would have to check all passports of prospective tenants regardless of nationality to comply with the Equality Act. We anticipate **this will lead to more students from black and minority ethnic backgrounds being discriminated against when looking for housing**.

20. *"The bill will only promote **institutional racism in housing**. It will also promote public hostility to immigrants, legal or illegal"*. Home Student, University of Sheffield

21. Some 89% of our students described the decision to restrict the right to appeal as "unfair". If this becomes law, international students will be left without a safety net against mistakes. Our staff at the Student Advice Centre have been supporting international and home students with immigration appeals since 1991. In our experience **the vast majority of these appeals have been successful** which indicates that the decision-making is flawed and not the applicant. Many of our cases involve family members of students and there is no doubt that without a right to appeal these decisions we would have lost many valuable PhD students as these students would have withdrawn from their studies rather than face separation from their families.

## **22. Effect of a reduced international student population on academia and community**

23. University provides an opportunity for home and international students to share ideas and learn from each other, and the UK would miss out if international students were encouraged to go elsewhere. At Sheffield, international students are an important part of our academic community, making up some 46% of our postgraduates and 24% of our student population overall. Moreover, in our research **89% of home and international**



**students said international students had a “positive” or “very positive” effect on the UK as a whole:**

24. *“Allowing international students to study in a country shows its power and confidence. Britain can benefit from allowing a **larger pool of talented individuals to develop and share their ideas within the British educational system.**”* Home student, University of Sheffield
25. *“Multiculturalism and an open, enriched society is its own justification. International students bring money into the country and make universities the successful educational institutions that they are by bringing diversity and experience to the campus and the classroom.”* International student, University of Sheffield
26. *“Openness to talented young people from around the world is at the heart of the UK’s world-leading universities. It is a powerful source of international collaboration and understanding as **generations of leaders in every sphere of life have been given the opportunity to learn from and alongside the most able people from every continent.**”* Professor Sir Keith Burnett, Vice-Chancellor University of Sheffield and Alasdair Buckle, President Sheffield Students’ Union.

## **27. Recommendations**

28. Based on our experience of supporting international students including those doing STEM subjects we recommend that urgent consideration is given to the following:
- 28.1. Removal of international students from the net migration figures.
  - 28.2. Re-introduction of the Post Study Work Scheme.
  - 28.3. Exemption of international students from the NHS charges
  - 28.4. Landlord checks not to be introduced.
  - 28.5. Retention of right of appeal.

*Author: Jo Holliday, International Student Adviser (on behalf of) University of Sheffield Students’ Union*

*19 February 2014*

## University of Warwick – Written evidence

The Immigration Rules are having an adverse effect on the recruitment of international STEM subjects at the University of Warwick. Comparing first year undergraduate enrolments in 13/14 with the previous year in the following subject areas, we have seen the following decreases:-

- Medicine and dentistry – down by 5
- Physical Sciences – down by 24

Whilst Warwick has been fortunate not to have experienced the same level of decline in international student numbers seen in other HEIs, particularly in the Indian market, we are concerned about significant changes to the rate of growth that we were seeing year on year, and to the diminishing ratio of applicant to enrolled student, meaning that we are selecting the brightest students from an ever decreasing pool. Negative messages about the UK being a place that is unwelcoming and suspicious of students, with increasingly strict immigration policies that limit the international student experience mean that we are playing into the hands of competitor countries.

We know that our applicants and students are affected and concerned about recent immigration policy. In a recent i-Graduate survey, one piece of advice given by current to future Warwick students appeared repeatedly: 'Don't come to the UK for study until the UKBA changes immigration policy and bring back Post-Study Work!'

### **What can be done by government to enhance the UK's ability to attract international STEM subjects?**

- Remove students from the net migration figures for the reasons articulated so clearly by Baroness Usha Prashar in her contribution to the House of Lords Immigration Bill debate on 10 February 2014
- Failing that, exempt Tier 4 students from the current raft of immigration changes (NHS surcharge, abolition of appeals, landlord visa checks). The cost benefit of including this group in these punitive measures is surely negligible. We remain deeply concerned that the requirement for landlords to check visas will lead to discrimination and an unwillingness amongst risk-averse reputable landlords to rent to international students, leaving the market open for unscrupulous landlords.
- Improve the processing time for ATAS certificates – 20 working days and above is too long. We are losing good research students to other countries because ATAS certificates cannot be obtained in time to secure the necessary visas to start research programmes on time. Improve the communication between UK Visas and Immigration and the ATAS team in the FCO.
- Post-Study Work schemes such as the Doctorate Extension Scheme and Tier 1 Graduate Entrepreneur (Tier 1 GE) are positive, but the latter is small scale (there are a maximum

of 20 places per institution per year)and it is not of interest to a student who doesn't have the desire or financial ability to defer entering the graduate job market in order to create their own business idea.

- Re-instate Post Study Work (PSW) for students of all disciplines, at the very least for all Master's students. We know competitor countries have all improved their PSW offer – USA plans to increase PSW options for STEM graduates; Canada plans to double number of international students by 2022; Australia introduced more generous PSW options in 2013 in response to decreased international enrolments; Germany plans a 25% increase in international student numbers by 2020.
- Project a more welcoming and consistent message to the international students and staff who make our universities international places of learning – extract these valuable assets from the political battleground of net migration figures

*20 February 2014*

## **Roxanne Walters – Written evidence**

### **International STEM students**

#### **1. 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?**

The current strategy to attract foreign investment & trade to the UK through targeted, quantitative visa easing strategies, limited to specific foreign nationals/students ie China & India. Introduces the danger that numbers of international STEM students from the wider Commonwealth eg Barbados, Jamaica & Trinidad & other excluded Non EU countries, [who have a long tradition of students studying STEM & vocational HE subjects in the UK] will be detrimentally lowered/ placed under pejorative pressure due to the introduction of the policy reforms on immigration.

Important point to note that the fundamental of trade & foreign trade is to market a good, product & service & those who desire the product can buy it irrespective of 'point of origin'.

Should the issue of immigration control & managing the transition of persons between visa categories, or the possibility of this event arising influence the restricting of trade of a particular export product ie Higher Education to pre-determined & delimited foreign territories only?

#### **2. 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?**

STEM subjects include architecture & other subjects that are known as vocational/'professional' qualifications ie with a core, mandatory element of practical training/experiential studies in an approved industry environment which the student candidate must satisfactorily complete in order to obtain a full qualification for the degree they are studying. The current changes to the immigration rules are having an adverse effect on all international students on vocational courses in the UK including prospective international STEM students: medicine, [dentistry], engineering, health/care, hospitality & architecture.

James Dyson reports 61K engineering jobs in the UK will be unfulfilled this year.

Legitimate architecture students have been forced to voluntarily abandon their studies or be threatened with immediate deportation.

Legitimate accounting students in certain colleges & business finance students, as well as architecture students are currently excluded from being able to complete the studies they've paid for due to the immigration rule changes.

Under the current immigration rules students, prospective students will also be blocked from obtaining a full professional qualification

In certain courses such as architecture, there are radical overhauls to the program in direct response to the pressure due to the immigration rules.

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

The current political rhetoric of stopping international students from claiming they are coming to the UK to study but in reality are coming to 'live & work'. frustrating the studies of legitimate students on vocational courses ie any course with a core component of practical/experiential industry training as the Home Office views this as 'employment' rather than studies.

The political rhetoric of 'stopping international students from taking away entry level jobs from the British' misses the point that international students on HE vocational/STEM courses have paid disproportionately higher tuition fees & invested into the UK economy. Having infact pre-paid for the priviledge of the industry training as part of their studies having paid the tuition fees demanded – which in architecture can be as high as £20K per annum. Median £15K per annum.

The policies were are therefore affecting international STEM/vocational students is the compelling of legitimate students to apply for Tier 1, Tier 2 & now entrepreneur's visa [business & work visas] which carry higher economic burdens to complete studies they have already paid for.

Also creating issues of blight for the UK:

Open to suggestion of committing International fraud

All students whose studies have been blighted by being compelled to apply for business & work permits to finish studies; been forced to abandon studies/restricted from obtaining a full professional qualification have entered into an education contract with the UK & UK universities for which they have not acquired the full product.& service they paid for [mis-selling the consumer]. The new rules have been retrospectively applied to persons who entered into a contract that began before the new rules were implemented & under the ordinary rules of law, retrospective application of the law in this nature does not happen

It can be said that if the current rules are maintained, then prospective students will be short changed as they're being sold an inferior product [incomplete educational package]

Open to the suggestion of Non-compliance with 'Fair Trade' tenets

International student candidates on vocational/STEM subjects spend a disproportionate amount of money [in terms of fees, accommodation, course resources, maintenance etc] in comparison to 'British/home students'. To then deny said international students a full qualification so that such a student can maximize the ROI on the UK education they have chosen to invest in. Particularly since the period of practical industry training often occurs in the final year/years of study of a vocational qualification.

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

There are various negative impacts with the provisions in the Immigration Bill, the NUS & Daniel Stevens have already raised & this report echoes & agrees with those concerns raised.

Specifically, this report makes reference to international STEM students & those on vocational courses: these students will be limited to the theoretical studies for vocational/professional courses which are practical in nature which is of little use to these international students securing work – wherever in the world that might be. It is grossly disproportionate to the financial & time investment that the UK otherwise invites these students to invest in these HE courses.

**5. 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?**

In terms of Architecture ; it can be said that the impacts are not monitored or monitored ineffectively by the competent trusted bodies who regulate & govern the course delivery. There is not sufficient collection and analysis of data to enable links between cause & effect. With certain responsible bodies claiming they are aware there is an issue & while a 'significant proportion of the students on the course are international, they are unaware of how many students are actually affected'

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

No. Students have not been made aware that they cannot currently obtain a full qualification on these courses. Although students from India on accountancy courses here in the UK have had their studies frustrated in a similar way & it is reported in national press that the numbers of international students from India continues to decline.

The Vice President of the Commonwealth Association of Architects claims to be unaware of students from the Caribbean studying architecture in the UK. It is reported that the CAA now actively encourages students from the Commonwealth to study architecture in Jamaica, US/Canada only. [Evidence of this statement can be provided as necessary]

However, if prospective international students do become aware of the hurdles currently in place the competitiveness of UK HE institutions in attracting international STEM students will most definitely be limited.

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

No. Anecdotal evidence & student witness statements can be supplied

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

Yes. But the key point is students on STEM/vocational courses need to satisfactorily complete trainee placements in order to successfully *finish & graduate* from HE studies. IE

there is a legitimate need to enter into the industry setting before studies are completed & this is currently being frustrated.

However, the circumstances of this highly skilled student who has international awards & First Class honors in her HE STEM degree raises the interesting point of whether the UK would wish to put policies in place across the board in STEM/vocational studies to retain & attract such highly skilled talent after the student candidate has graduated from their studies:

Please refer to

<https://www.change.org/petitions/mr-mark-harper-please-allow-roxanne-walters-to-complete-her-uk-architecture-studies> & view petition comments as well

**9. Are immigration policies and rules jeopardising the provision of particular STEM taught masters or other postgraduate courses at your institution?**

Yes. The Architectural Association & other UK universities face the restriction imposed by the Home Office that they cannot grant visas to student graduates from other universities for certain legitimate parts of the Architecture course.

There is currently a re-structuring of the course that is in direct response to the EU directive but more importantly Government directive driving by current immigration policy. The immigration policy is now dictating the length, duration & content of essential industry courses that require specialist training & expertise of industry graduates. It can be said that the immigration policies are therefore effectively undermining the quality of UK education & will therefore eventually impact the UK's ability to compete globally as the UK graduates from STEM/vocational courses will not be able to compete to the same quality & ability as say engineering/architecture graduates from Germany – where it is currently free for international students to study.

China has also recently made it possible for international students to finish their architecture degree in Hong Kong that poses a serious competitive threat to the UK's continued international dominance in the global construction industry.

*20 February 2014*

Professor Steve West, Universities UK's Health Policy Network, Professor Erol Gelenbe, UK Computing Research Committee and Sir Andrew Witty, University of Nottingham – Oral evidence (QQ 42-52)

**Professor Steve West, Universities UK's Health Policy Network, Professor Erol Gelenbe, UK Computing Research Committee and Sir Andrew Witty, University of Nottingham – Oral evidence (QQ 42-52)**

[Transcript to be found under Sir Andrew Witty, University of Nottingham](#)



Sir Andrew Witty, University of Nottingham, Professor Steve West, Universities UK's Health Policy Network and Professor Erol Gelenbe, UK Computing Research Committee – Oral evidence (QQ 42-52)

**Sir Andrew Witty, University of Nottingham, Professor Steve West,  
Universities UK's Health Policy Network and Professor Erol Gelenbe, UK  
Computing Research Committee – Oral evidence (QQ 42-52)**

*Evidence Session No. 4*

*Heard in Public*

*Questions 42 - 52*

TUESDAY 11 MARCH 2014

Members present

Lord Krebs (Chairman)  
Lord Dixon-Smith  
Lord O'Neill of Clackmannan  
Lord Patel  
Baroness Perry of Southwark  
Lord Peston  
Lord Rees of Ludlow  
Earl Selborne  
Baroness Sharp of Guildford  
Lord Wade of Chorlton

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**Examination of Witnesses**

**Sir Andrew Witty**, Chancellor, University of Nottingham, **Professor Steve West**, Vice-Chancellor, University of West England; Chair of Universities UK's Health Policy Network, and **Professor Erol Gelenbe**, Department of Electrical and Electronic Engineering, Imperial College London, and member of the UK Computing Research Committee

**Q42 The Chairman:** I would like to welcome our three witnesses to this first evidence session this morning in our inquiry into STEM students and the Immigration Rules. In a moment, I would like to invite the three panellists, starting with Sir Andrew, to introduce themselves for the record. If you want to make a brief opening statement, please feel free to do so. Then we will move into the questions that we wish to discuss with you. Perhaps I will start with Sir Andrew.

**Sir Andrew Witty:** Thank you and good morning. I am Andrew Witty. I am the Chief Executive of GlaxoSmithKline. I am also the Chancellor of the University of Nottingham. I will not make any further comment at this point.

Sir Andrew Witty, University of Nottingham, Professor Steve West, Universities UK's Health Policy Network and Professor Erol Gelenbe, UK Computing Research Committee – Oral evidence (QQ 42-52)

**Professor West:** I am Steve West. I am representing Universities UK. I sit on its board and I chair the health and research committee. I am also Vice-Chancellor at the University of the West of England in Bristol.<sup>205</sup>

**Professor Gelenbe:** I am Erol Gelenbe. I am a Professor at Imperial College in the Department of Electrical and Electronic Engineering. I am head of the Intelligent Systems and Networks Group, and I am here to represent UKCRC, which is a committee of senior academics in the fields of computing, electronics, electrical engineering and information technology.

**The Chairman:** Thank you very much. As you know, we are trying this morning to understand, first of all, the basic facts of what has changed in student numbers, if anything has changed, since the Immigration Rules were introduced, and later to understand to what extent any numerical changes can be attributed to changes in the Immigration Rules. We are also particularly interested, towards the end of this session, in the post-study work and the way that has changed.

Perhaps I could kick off by asking each of you in turn, with regard to your own institutions and any broader experience, what has happened in the changes in numbers of STEM students coming to this country from outside the European Union, and whether particular countries have been affected, whether particular subjects have been affected and what impact that has had on your institution. Perhaps, Sir Andrew, you would like to kick off.

**Sir Andrew Witty:** Specifically from the University of Nottingham's experience, the only real trend of any note is a decline in the number of students coming from India. There is really very little trend beyond that that I think would be sensible to highlight or put any store by. Looking at the national data, you see again the India trend but, interestingly enough, you also see a trend in computer sciences, so overall the numbers are fractionally down over the last couple of years. It seems to be both in computer sciences from a discipline perspective, and from India as a source of citizenship. Beyond that, it is quite hard to see any very significant shifts at all.

**Professor West:** I have exactly the same picture, Chair. The Indian/Pakistan market is the market that seems to have been severely impacted since 2010. We have seen, interestingly, increases in other market sectors—Vietnam, China and Nigeria—so there is a changing pattern emerging. It is just as well there is, because that is compensating for the significant decline in other markets. We are also seeing increases in creative industry sectors in the UK, so international students beginning, from those emerging countries, to go beyond the traditional subject areas that you would see within STEM.

**Professor Gelenbe:** I would just like to add something to that. We also see this change in composition of the students, with perhaps a greater emphasis on students whose command of the English language is not as good as it used to be. This has an impact on the whole teaching process. We are losing students who understand and use English well and we are gaining students who need a lot of remedial support in this area. With a class, that moves us very much towards, if you wish, a monoculture. This has some negative effects on the whole teaching and educational process, and on the research. Definitely, in addition to the non-EU

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<sup>205</sup> I am also Chair of the University Alliance Mission Group

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or overseas students, we see a reduction in Europeans as well, which goes generally in the same direction.

**Q43 The Chairman:** I wondered whether any of you would like to comment on what the impact of these changes. You have all highlighted that the decrease in students from the Indian subcontinent coming to the UK since 2010, which is what the BIS statistics drawn from the HESA data also demonstrate to us, is on courses that you run, particularly postgraduate taught master's courses, which may be quite dependent on certain populations of students, say in computer science. I wonder whether you have any comment on that, Sir Andrew.

**Sir Andrew Witty:** Not particularly. There is obviously a change in the composition, because we have seen fewer students come from India, but that has been compensated for by continued strong demand from elsewhere. The ability to continue to populate the courses remains good. I think it is worth potentially reflecting on whether there is a direct link between the drop-off in Indian demand and the computer science piece. I am not sure I can add anything more to that, but two interesting points jump out of the statistics. Whether they are really linked or not is not clear to me.

**The Chairman:** Just before moving on to Professor West and Professor Gelenbe, I wanted to ask Sir Andrew a question with regard to Nottingham. I know you have campuses in the Far East, and I wondered whether there had been any detectable shift to students from the Indian subcontinent going to your campuses in the Far East as opposed to coming to the UK.

**Sir Andrew Witty:** We have a campus in China and one in Malaysia. Interestingly enough, over the last couple of years the Malaysian Government have made it incrementally more difficult for overseas students to attend that campus. Actually, while you will hear some people say that some countries are making it more attractive, not everybody is; Malaysia is going in the other direction. There is certainly a population of students who you will see in Malaysia who come from not just India, but Africa and elsewhere. I suspect the bigger driver, frankly, is the differential fee levels, where it is a less expensive venture for them, not necessarily just in tuition fees but in living costs and the like. I think it is probably more multifactorial than a simpler shift share from UK to Malaysia, and I would not say there was a significant trend in any case.

**The Chairman:** Coming back to the question about viability of courses and the contribution of student from the Indian subcontinent, Professor West.

**Professor West:** It is a very similar picture again. Postgraduate is a market that is actually quite difficult at the moment, particularly for parts of the UK higher education sector, so universities that might be outside the Russell Group are finding postgraduate areas quite difficult to recruit to. There are probably two reasons for that. One is that clearly home students are beginning to feel the impact of the introduction of fees, and I fully expect, when the £9,000 fee students start to exit, that we will see a further decline in students picking up postgraduate, as companies are not sponsoring them and they cannot get access to loans. That is the first thing. International students are important in allowing a viable number of participants on our postgraduate programmes.

We are seeing many more institutions operating with very low numbers on postgraduate areas, just to keep them moving, so student numbers around 10 or eight are not unusual in

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some institutions but are clearly not viable in the longer term; they need to be around 15, 20 or 25 in order to have a viable community of scholars, let alone the financial considerations. What we are seeing again in the postgraduate market is the demise of India and Pakistan, in particular in science and engineering, where they were fairly buoyant, and a move more towards Malaysia, Singapore, Hong Kong and China.

Picking up a point, Chair, if I may, on the Malaysia and Singapore market, increasingly students are looking to study in country in a host institution, and then spend less time actually completing in the UK. It is not unusual to have a pattern of two years in country and one or two years in the UK. That again keeps their cost down, so even universities that do not have international campuses often have international partnerships, and that is how they are moving student numbers around. Importantly for UK students, the beauty of that, if we can get UK students to think more globally, is that there are opportunities for them to study internationally as well, so there is a reciprocal set of arrangements.

**Q44 The Chairman:** If I could just pick up on one particular subject area, we have referred already to computer science and the possibility, as Sir Andrew mentioned, that that might also be conflated with the Indian subcontinent. Another area in which the HESA statistics show quite a substantial decline is in subjects allied to medicine. I wondered, Professor West, whether that has been noticeable in the University of the West of England.

**Professor West:** I need to explain how subjects allied to medicine are funded, so that people can understand the slight difference. Most of the subjects allied to medicine—nursing, midwifery, physiotherapy, occupational therapy and the like—are funded through the NHS via the Department of Health. They are not funded through the current HEFCE and student loan companies, so these student numbers are capped and controlled very closely. International students are permitted to come on to those programmes but are normally controlled because of the impact on the NHS and placements.

We are seeing a reduction in the number of international students, particularly international students wishing to study nursing. That is where the biggest impact has been. There are two reasons for that. The first is the limitations on the number of international students that can be taken anyway, which is beginning to feed back into the consciousness of international communities. Secondly, some of the press that has been quite negative about the NHS is also beginning to have an impact on attracting international students, so there are multiple dynamics playing out within the allied health professions.

**Q45 The Chairman:** We were told last week by Professor Georgina Rippon from Aston University that at Aston courses allied to medicine, such as pharmacy and optometry, had been particularly severely hit by falling international student numbers. Is that a unique Aston situation?

**Professor West:** That is true. Pharmacy and optometry fall outside the NHS funding elements, so they are part of the Student Loans Company and the Further Education Funding Council. Pharmacy, however, is really interesting. There are debates ongoing to control pharmacy in the same way in which student numbers for medicine and dentistry are controlled. This is because we are overproducing pharmacists, and there are pressures coming in. International students are a significant proportion of the students studying pharmacy, so there will be a further impact, I suggest, because the Department of Health

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yesterday was considering how to control home student numbers and international students accessing pharmacy programmes. This relates to the registration year in particular.

**The Chairman:** You would expect the effects that were reported from Aston University to be more widespread.

**Professor West:** Yes.

**The Chairman:** Professor Gelenbe, I wondered whether you had a comment particularly on computer sciences, which has been brought up.

**Professor Gelenbe:** With respect to the taught postgraduate courses, one sees that the short four-month post-study work period is having an adverse effect in that students become much more career-conscious during their studies when they should actually be concentrating on their courses and then on their projects. They already start scurrying off to interviews, getting part-time jobs and so on. That is probably a negative effect on their studies.

As far as the numbers are concerned, of course the top programmes will always be protected. There will always be enough candidates, so that is not an issue, and then others will suffer, which may be an issue. With respect to the qualitative aspects, this net segregation between the education process and the practical experience, shall we say, should be a bit clearer, and there should be a longer period of practical experience, because they go off and start talking to banks and so on, in London of course, and spend a lot of time doing that. The work they produce in the classroom is not of the same quality.

**Q46 Baroness Perry of Southwark:** My question takes us on to the question of the tightening of the Immigration Rules. It has two parts, really. How much do you think, or how much is your experience, that the Immigration Rules are detracting from this country's ability to attract overseas students in STEM subjects? The second half of the question is: how much are the changes also reducing our ability to retain the brightest and best after they have been through their studies?

**Sir Andrew Witty:** I do not think there is a very obvious deleterious effect, but slightly more subtle effects may be at play here. The changes themselves have allowed, to put it bluntly, a media rhetoric to be built up and exploited, which in large part does not necessarily reflect the substance of the changes. Somehow the rhetoric in some countries—India is a very good example of it—has potentially been allowed to be overstated as a negative and a differential point, which to some degree may or may not have been exploited by competitor countries. Who knows? That certainly happens.

In addition to the notion of new regulation, there have been very frequent changes—multiple changes—of regulation over the last two or three years. That does not make it easier for people from outside the country to understand how to engage with the country. Change is sometimes almost as bad as the substance in the sense of how frequent it is, giving an impression of an ever-moving target. That is the second part that is worth bearing in mind, at least.

In terms of the extent of retention—this plays back a little to the attractiveness of the country—the speed with which a graduated student has to find a job if they want to stay here is a problem. It makes us marginally less attractive to some other countries that have slightly longer periods and frankly simpler windows for them to deal with. The fact that it

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forces, as you have just heard, people to start to overfocus on finding their job before they have really finished their studies is probably not ultimately ideal, not at the margin at least. It is not great for employers, because it makes it very difficult for us to plan ahead too much who we want to take. Everything ends up being a little frozen, and then suddenly it thaws and everything has to be done in a very short time. If you have institutions that graduate, let us say, two or three months after somebody has finished their finals, by the time they physically have their degree they have vanishingly small amounts of time to successfully secure the role. The danger is that they assume failure. The danger is not that people go all the way through that process, somehow it will not work and they must go home, which is very disappointing; it is actually that they just assume they will never be successful. They assume that that very short period of time will not be enough, so they do not try.

**Baroness Perry of Southwark:** Would a longer period of time help, or are there other devices, such as earlier recruitment programmes from companies like your own, in universities with strong science departments?

**Sir Andrew Witty:** From a personal perspective and from a GSK perspective, we would always favour a simple solution to the identified problem, rather than complex ways to chip away at the problem. We would recommend giving people a year's grace from when they graduate to be able to secure the role. We do not think it should be for ever, but we also think that where we are at today is too short and that there are efforts to try to diminish that, but in a way we are creating even more complexities. The idea of the entrepreneurial exemption with a thousand extra places seems to be more and more complexity to address what I think is a pretty simple problem: just giving people the breathing space and the confidence to let them finish their course successfully, and then engage with the jobs market, with the piece of paper in hand, to be able to secure the right role. I do not think it should be too long, but it feels to me that four months is too short. A year feels sensible.

From a very personal perspective, my son is at a university in America. The visas that they are granted are very straightforward: they are given a five-year visa for a four-year course. Interestingly enough, they are given a choice: they can either use up the additional one year at the end of graduation, in the way that I am describing; or if they chose to work in America during their summer vacation, they use up that year. That is available to them essentially for work experience in the host country of the education, and is very attractive for people who go to school in the US.

**Baroness Perry of Southwark:** It is blindingly sensible.

**Sir Andrew Witty:** It is very straightforward and you do not have to ask for it. It is just part of the process.

**Professor West:** Perception is really important to understand that the UK is playing within a global marketplace. We are all trying to recruit the very best we can from an international pool, so perception and what students, or their advisers and parents, are reading in the press at any particular moment, has a huge influence on how they feel about the country that they may be studying in. If we think about what happened post-2010, there were many negative stories in the press about how the UK was supporting international students. London Met was in the news. That went round Pakistan and India within about 24 hours, and the number of negative stories was significant: in the thousands. We should also not

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forget that social media now means there is an immediacy to the story, which goes across continents and around the world very rapidly, so perception is very important.

The reality of course is that when students then make their choices and look at the regulatory frameworks within which they have to apply, they are looking for simple, clean obvious routes in. The more complicated and the more confusing the application process is, and the more hurdles students have to jump through, the more likely they are to look at other continents and other countries that seem to be more welcoming in the way in which students have to complete information.

The change element that Sir Andrew mentioned is very important, because many of these students will be using support frameworks in country—agents and university offices—to help them navigate their way through. If the rules keep changing, they may be being misadvised as they put their applications in. Again, if we can keep things simple, clean and clear, we are more likely to attract and retain the very best.

I absolutely agree with Sir Andrew about the timeframe for students to gain access. One of the reasons why international students look to the UK, apart from the quality of higher education that is here, which is recognised globally as excellent, there is the opportunity to enhance their CVs through post-graduation employment. Certainly for the Indian students and many other students who are accessing loans from the bank, it is on the back of their ability to work post-graduation. That is how they pay back their loans. Some of our rules are more restrictive than other continents' on how they access employment, and some of the frameworks for how much they have to earn are unrealistic. In the current fiscal environment that we are in, many of our graduates are initially going into technician-level jobs. These are graduate jobs in that sense, but the economic climate means that they are unlikely to be earning £24,000 when they leave university; they are more likely to be going into jobs that are around £18,000 or £19,000 or less<sup>206</sup>. That applies equally to home and international students, so we have some confusing consequences being played out within our regulatory frameworks.

**Baroness Perry of Southwark:** You mentioned the brightest students. Is it having an impact on the quality of students? Are people who are able to play the field, the brightest students who could choose their country, the ones we are losing, or are we retaining them?

**Professor West:** It is a very difficult question to answer, but I have no doubt that the very brightest students are the same as the very brightest students in the UK, and they do their homework. I would not be surprised if, when an international student is considering studying in the UK, America or Australia, they are making a judgment about how they are going to receive high quality education and opportunities for employment on their CV. Their third consideration may or may not be what support through bursaries, scholarships and internships is available. That message consistently comes through the British Council and university fairs, regardless of the continent that they are trying to recruit students from; employability is absolutely key.

**Professor Gelenbe:** With respect to the post-study work period, it is absolutely clear that four months is inadequate, certainly at the postgraduate level. At the PhD level, we have one year currently. That should go up to two years, because that is a good period of time to

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<sup>206</sup> some home students take-up unpaid internships for up to 12 months

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write your papers coming out of your PhD, do some postdoctoral work and you start to become useful to their laboratory and other laboratories. These periods are really too short.

The other thing we have to be aware of is that our competitors are of course Australia and the US, but they are also various European countries. For instance, in recent years, France has become less attractive to taxpayers, but much more attractive to foreign nationals who want to do research there, because of the friendlier atmosphere created by the current Government. Similarly, thinking about computer science specifically, the German automobile industry is going through a tremendous transformation with respect to smart vehicles, and there are huge recruitments of people who specialise in telecommunications, computer science and software. These changes are happening just next door to us, and a lot of our students are attracted to go there.

On the other hand, we have some positive effects. The dismal situation in Italy is making us more attractive with respect to PhD students from Italy and postdoctoral fellows. On the other hand, generally the situation is getting better abroad. We just have to be much more attractive and we really must project our image as a meritocracy, rather than as a bureaucracy. We must say that the UK is an intelligent country; we optimise our resources, and we optimise our society to work in the best possible way. We put in positive-perspective contributions, rather than, "This is the rule. That is the rule. You cannot do this. You cannot do that". That is what I would like to say.

**Q47 Lord Rees of Ludlow:** This is a question about the perceptions that may be exaggerating the reality. Are these negative perceptions about the actual rules themselves or perhaps the somewhat insensitive way in which they are being implemented at an operational level, by you having to queue up a long time to register with the police, to get visas, et cetera? Is it a matter of the actual regulations or the operation of them?

**Sir Andrew Witty:** It is impossible to really answer the question accurately, but my sense it is largely the latter rather than the former. We are obviously talking about a deeply emotive subject here, but also in the source countries of talent with great history associated with any commentary in either direction. It does not take very much of a spark to create a very significant reaction. Whether that is in the regulation or the implementation of a regulation, or just the notion of change allowing an interpretation of intent is very hard to distinguish. For me, the perception is now much bigger than anything that you can objectively tune in to in the reality, which perhaps raises the question of how we reverse the perception, if that is what we want to do.

**Professor West:** I think it is both. Maybe our rules look more complex than other continents', so we appear less welcoming, and that gets reinforced by social media, word of mouth, and friends who have come to this country, queued and had a bad experience. The difficulty is that one bad experience is the experience that everybody shares. That is the one that is out there in social media; it is the one that the press gets hold of against probably a hundred fantastic sets of experience. The balance is the difficulty. Our actions are the reality for students, so it is not what we say—"We're open for business. We're a welcoming country"—it is how they experience that.

**Professor Gelenbe:** We have our own MSc students who go home and then wait for the ATAS process to conclude and receive their visa. They are in limbo for several months. During that time, if they receive an offer from a reputable American university, what do you



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think they do? They go to the reputable American university where that process is much more direct. Once the university has sent out the letter, it means that they also have their admission visa, so we have to look at ourselves in the competitive framework. The ATAS process in particular—I say “the process”; I am not looking at the general principles—is not very effective. It creates this fear of limbo, of wait, of expectation, of not knowing what is happening, which is quite destabilising to young people.

**Lord Peston:** You lost me at one point. At one point, you were arguing about the perspective of the student, but my experience as an academic was also the reverse. Lots of my ex-students get in touch with me to say, “We are looking for an economist who can do this sort of work. Do you have anybody any good this year?”. To go to GlaxoSmithKline as an example, human capital must be vital to your business. Do you have someone working for you who regards it as their role to reach out to the universities and say, “Who have you got for us this year?”. That person may be foreign, but presumably you are not biased in that regard. Could you enlarge a bit on the perspective the other way around? After all, you are all connected with universities. Why are you not reaching out and saying, “We want your best people no matter what”, or is the answer that you are?

**Sir Andrew Witty:** Do you mean from an employer perspective?

**Lord Peston:** Yes.

**Sir Andrew Witty:** Absolutely. We have deep relationships with a portfolio of universities, both here and internationally. We have a clear view about what we are looking for in the UK to try to diminish or encourage the transference of talent. We remain the only company in Britain that will pay 100% of student fees from any student who graduates from a British university and joins us from university, so we have tried to eliminate any of the financial anxieties that anybody might have. If somebody wants to read chemical manufacturing because they dream of manufacturing medicines, they should not be put off by money if they think they are good enough to come and work for GSK at the end. We work very hard on that.

Actually, I was just looking at the data for the UK. Over the last three years, the number of applicants we have had for engineering appointments within our manufacturing division has almost doubled, but the number who are foreign students in British universities has gone up fivefold. In terms of the share of applicants that we receive, everything has gone up, but the proportion who are overseas students studying here has gone up very dramatically.

We are interested in two things. One is the absolute best talent; we do not care where it comes from. You only have to look at our intra-company transfers to show that, once they are in the company, they get moved all over the world. The second is we see the UK strategically as a fantastic place to identify the best international students, not to work here for very long but to work here for a couple of years to understand how the culture of the company works, and then to go back to lead their businesses or be leaders in their businesses, back in the countries they came from or their region. That is an area where, I suspect, some of this perception challenge again erodes our capability to do that at the margin. It is not about looking for people who are going to be here forever; it is about using the time they are here to attract them in to become part of our global operation.

**Q48 Lord O'Neill of Clackmannan:** Professor West said that a number of students are having to take jobs at technician level, which precludes them from reaching the threshold.

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Do you have anything other than anecdotal evidence to support that? Have the universities provided Universities UK with any kind of feedback of a properly coordinated fashion?

**Professor West:** We would certainly be able to do that. All universities do a HESA return that tracks students post-graduation, so six months after graduation there is an audit point. That looks at where those students have gone, what employment they are in and the average salary. From 2008 onwards we have seen more graduates going into roles that traditionally, pre-2008, would not necessarily have been seen and identified as graduate-level jobs, but are jobs none the less. Therefore there is a suppression of salaries within the working environments. That applies to UK students as well as international students.

One of the things that universities are doing better than they have ever done in the past is not to rely on the happenstance of companies going on recruitment campaigns and recruitment drives. Most universities are now focusing on how they can embed placements and internships at the very heart of academic programmes to link to employers. One of my roles is as president of Business West, which is a chamber, and regional chair of the CBI, so I get a perspective from the business communities that are welcoming that better link and engagement with universities and businesses. They are beginning to understand that talent can come from anywhere, any university, so the traditional blue-chip companies that tended to focus, frankly, on a milk round of about four or five universities are much broader now in their thinking, partly because they are being exposed to very different characteristics of students coming through placements and internships.

**Lord O'Neill of Clackmannan:** Obviously this is welcome and it is relatively new. If we were to look at 2007 before the financial crash, we probably would have been talking about the problems of STEM graduates going into the City. Now that avenue has at least been partially blocked, but not completely. Are the opportunities in the City also completely out of the STEM field, or out of what one would have thought would be the STEM range of employment opportunities? Do you think that we have changed because of that? Is it a local thing?

**Professor Gelenbe:** Can I say something about that? The City does not just do spreadsheets. The City does a lot of technology. It has very sophisticated computers, very sophisticated algorithms and a lot of mathematics. I think that a lot of jobs in the City are actually very appropriate for STEM graduates. Therefore, we should be happy about that, as we see that we have such a competitive City that is able to draw in the best technical talent.

**Lord O'Neill of Clackmannan:** At the moment, they are not drawing in as many as they used to.

**Professor Gelenbe:** Nevertheless, it is an important outlet. It is very important and it should remain at a very high level of quality.

**Professor West:** We are just seeing a change on the back of some fairly big investments in engineering technology. In the south-west in particular, we are working with EDF as they begin to gear up to develop their nuclear capacities in the south-west, which will be significant. Interestingly for science, technology, engineering and mathematics, this is about big infrastructure, so building construction, as well as some high-tech engineering. We have a huge worldwide shortage of nuclear engineers for commissioning and decommissioning, and what we are beginning to do is work out how we can attract young people, encouraging

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them to look at science, technology, engineering and mathematics at schools and pull them through.

Projects, for example the BLOODHOUND project, which you may be familiar with—a 1,000 mile an hour car—is about an iconic project that connects with young people in schools to try to encourage them to consider science and engineering technology as a career. We have to get to that point very, very quickly, because we are not creating enough engineers for the country's needs, let alone the global needs.

**Q49 Lord Wade of Chorlton:** I have two questions really. First, you have all mentioned costs at some stage of this operation. I would like to understand the impact of extra costs, which are now being put upon UK students, and how they are affecting students from abroad. Obviously they must be paying more as well. I would like to understand, if a student from here is paying so many thousand a year, how that reflects on what a student from India would be expected to pay. Clearly you have to look at that, as you have suggested earlier, to the risk and reward question. People are now looking very seriously at whether the cost of their education is going to be rewarded by the extra work and jobs that they can get out of the marketplace. I would be interested in your view on that.

I would also like to address this question of perception. You talk about perception, and clearly you are indicating that what they perceive is not the facts. What do universities do to try to ensure that what they perceive is correct? In other words, what role do you play in trying to counterbalance what you see now as not being correct?

**Professor West:** Most UK institutions are now charging a fee of between £8,500 and £9,000. All institutions appear to have done that. That is the maximum that you can charge within the UK for home students. Those students access a loan, in the main, through the Student Loans Company and then begin to repay it once they graduate, so they do not have to find the money upfront. Clearly for international students we are in a true market, and universities are allowed to charge whatever they believe that market will bear. Therefore, each institution will tend to have a different price range for international students, which depends on the brand of the institution, how popular they are as an institution, as well as the true cost of delivery—price and cost not necessarily being the same.

There is a broader variability in international fees. For some institutions that are not highly selective, maybe research institutions, the fee for international students may only be £1,000 to £2,000 more than for a home student. Clearly for engineering and medical students, there will also be an additional premium that relates to either bench fees—accessing laboratories—or fees to pay for placements within clinical areas in particular. There is a premium added to those students. Equally that would apply to pharmacy and other clinical professions. There is not one answer, I am afraid, to what the impact on international students is. It depends where they study, what they are studying, how attractive and how strong the market is for that particular institution.

**Q50 Lord Wade of Chorlton:** Before you go on to the next stage, if that is the case, and I am sure that is right, do students now see themselves much more as customers of universities than they ever used to? Are universities realising that they are customers and that they look at the offer as customers, rather than, “I’m grateful to be able to get to university and get my degree?” Is that not happening internationally, because inevitably it will? Do the

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universities not have to look much more closely at what they offer for their costs? Do you need to have three years to pass a degree?

**Professor West:** There is quite a lot within that, my Lord. The universities are recognising that the relationship between the students and the university is changing. In some instances, it is a direct customer relationship. When they are accessing our halls of residence or restaurants, they are absolutely a customer. We are trying to develop a relationship with the students to be co-creators of learning, so it is not a straight transactional relationship when they are engaging in study. However, what is changing is the need for universities to deliver the highest possible quality education and to deliver on what they promise. If we promise, for example, that we will do a four-week turnaround for assessment and feedback, and that will be of a high quality, then we have to deliver that, so it is a slightly different set of relationships. I think the universities are much sharper than perhaps they have been in the past, because we are in a global marketplace.

We also have to be clear that these students are also looking for an opportunity to enhance their CV, so employability, placements, interaction with companies, careers fairs, careers advice, student support in terms of social, medical and financial, all have to be part of the offer in order to attract them and then retain them. We are also seeing more and more students, both home and international, with quite complex learning needs in many of our institutions. That adds another cost to the delivery of education. We are doing an awful lot to ensure that the package of offer is absolutely right.

Many institutions are also looking at extended three-term degree programmes to try to fast-track, where possible, those students. The students' reaction to that is quite interesting, because many of those students want to work part-time whilst they are studying. Therefore, if you try to do fast-track two-year degree programmes as opposed to three-year degree programmes, you take away their ability to actually work part-time. There is some evidence that maybe their learning is not as deep because they are rushing through; they do not have time to reflect. The jury is out on that one.

**Sir Andrew Witty:** Specifically from the University of Nottingham's perspective, for domestic students it is £9,000, and international students would be somewhere between £15,000 and £20,000, depending on the resources required. A heavy engineering course would be at the upper end; a lighter one would be at the other end. That gives you a sense from that perspective.

I may be making a slightly controversial comment, but I am struck, as I look internationally, by the fact that different countries have different fundamental philosophies about what you gain from an undergraduate degree. This country tends to be quite quickly focused on deep specialisation. Other countries will use the undergraduate degree to broaden your perspective on life and expect you then to do a postgraduate degree to drive specialisation. The question of whether the UK should explore three or two-year courses should be tied up with that same question.

My personal view, and as an employer, if we are going to stick with three-year courses, for which I think there are significant benefits, there is clearly space for students to have a more broadening educational experience than they currently receive. That is worth thinking about, because the very dramatic contrast between British-produced students and American-produced students is the point at which breadth becomes super-specialised. The

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Americans typically take two to three more years of a very broad experiential learning, at which point the student is typically more mature to make choices and they take much more knowledge into their specialisation background. The benefit to an employer is when you bring those people out at the end they come with a much broader package than you would typically find from a British student. I would not automatically say two beats three, but there is an interesting question about whether you could do something more additional in the three that makes the student even more employable. I think that is a reasonable question to ask.

**Q51 Baroness Sharp of Guildford:** I want to pick up on a remark, Sir Andrew, that you made at beginning of this, when we were asking this question, about the multiple changes in the rules. Currently we have before the House the Immigration Bill, which is going to be introducing yet more changes. I wondered what your perception was, particularly on the tenancy issues here. Whenever students go outside of the student residences and are seeking flats and so forth in the local town, the landlords are going to have to look at their documents and verify them. That is very different indeed for students initially, because these documents have to be with them in the home country to show the immigration authorities, the visa authorities, and they cannot really produce them for landlords. The other one is the changes in the NHS rules. I wondered whether we could have a quick remark on whether turning the screw yet tighter on these things is going to affect perceptions.

**Sir Andrew Witty:** Just to clarify, on the NHS, you mean the notion that they should make a financial contribution to it.

**Baroness Sharp of Guildford:** Yes, which may affect postgraduates who are bringing families over.

**Sir Andrew Witty:** The core issue is what our critics or competitors might do with whatever we might do. We need to be realistic and not naive around anything we do, as somebody somewhere has the opportunity and the potential to manipulate and to spin that information to serve their agenda. Again, I would reiterate that, generally, continuous change along a theme is less preferable than a single-step shift at which we can all move to a new equilibrium and can all work and manage around that.

On the two very specific points that you raised, I would have a slightly bifurcated response. Again if you look internationally, there is nothing very controversial about asking people who are resident in a country to contribute towards a health system. Certainly in the US, all students from wherever they come are mandatorily required to have medical insurance that is significantly more expensive than the numbers that we have been talking about for here. I do not find that particularly troublesome.

I think the unintended consequence of the tenancy type of focus point is it repeats that sensation or that unintended message of guilty until proven innocent. How many times do you have to prove you should be in the country? If you are from outside of the country and you have always dreamt of coming here, if you believe that Nottingham is the place to build your qualification, if you dream of working for a company, there comes a point at which, when you are asked that same question so many times, you think, "I get the message. You have not quite said it that way, but I get the message". I think I would be anxious from that perspective, as much as anything else.

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**Professor West:** I agree that the question is: what is the problem we are trying to solve here, with all this? Either we want to attract international students or we do not, and the subliminal messages are really important. Most international students will have health insurance when they come across. There is a bureaucracy that would be created if you asked for £150. Is that per year or per term? What are we trying to do within that? The NHS is not good, I have to say, having worked in it for a long time, at collecting money from visitors, so there is a bureaucracy. GPs do not like doing it. Accident and emergency departments do not like doing it. We have to be absolutely clear what the problem is that we are trying to solve.

Secondly, I agree absolutely with Sir Andrew that the burden of whether you are legitimately here or not is continually resting on the student. Students are not the issue in terms of immigration.

**Q52 Lord Patel:** Before I ask the question, can I correct what you just said about the Immigration Bill? I think the charge is supposed to be £150 per year and for it to be collected as part of the visa application, so it would not be the NHS that would be doing any collections, but that is just a comment. There are other issues about the Immigration Bill, which we might come to.

My question has partly been answered because it was mostly about post-study work, but let us drill down to some details about it. The new selected provisions under the type 2 visas, you have already remarked, Sir Andrew, will create a problem because of the constrained timescale that they have. How much of a difficulty does this cause an employer? Is it such a level of difficulty that it switches off an employer from ever considering international students for employment, or could other mechanisms be used to try to reduce the impact of this?

Secondly, you mentioned your own experience of your son's American experience. Are there other countries where the experience is much more like America compared to ours? The Immigration Bill is flawed in many ways. One is trying to use education to reduce immigration, and therefore putting students into reducing immigration. At the same time, the Government's ambition is to increase the number of international students who come here. The third part of my question is: what do we do to fulfil that ambition of Government to make UK universities more attractive to international students, despite the perception that our processes are developing and we actually are not welcoming?

**Professor Gelenbe:** With respect to the welcoming aspect of universities, a certain number of things have been done in addition to this idea of having students justify their presence to their landlords and so on. Other more grave things have happened, I think, which create an unwelcoming image, and one of those is the manner in which we have been organising the postgraduate doctoral studies through doctoral training centres. We would like to attract the best and the brightest, but the doctoral training centres in which most of the funds for doctoral training are being concentrated by the Councils have a separate regimen for UK students and for foreigners. In fact, we cannot offer the same scholarships to an Indian student or to a Chinese student that we can offer to a British student.

This is quite serious, because we claim to be a meritocracy, and at that very young age people are idealistic; they would like to view themselves as being treated equally, according

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to their abilities and their willingness to work hard, but this is not the case. In fact, there are a lot of contradictory things happening. The first step, which you alluded to, would be to separate the student issues completely from the immigration issue. This should be stated clearly and then you should handle these two things separately, with separate agendas.

**Professor West:** Sir Andrew was very helpful in his view of extending the period through which students would be able to get access to employment. That for me is a major factor that we need to address in order to ensure that these graduates have that opportunity. The removal of tier 1 post-study work and tier 1 post-study work being difficult have had a significant impact on our ability to attract and retain international students and, importantly, talent beyond graduation.

**Sir Andrew Witty:** Perhaps I would just try to make a couple of comments at a slightly broader level, if I can, because I think it is quite easy to get into the detail. It seems to me that it is in the interests of all the institutions involved and the country to have access to the very best talent we can possibly get, from wherever they come from. All the institutions are incentivised to do exactly that. Nobody in GSK wakes up thinking we should hire the mediocre talent; we all wake up dreaming of hiring the best. University of Nottingham recruiters do exactly the same, so there is already a tremendous mechanism to drive in that direction, and it is not clear to me why we need many of these other controls, to put it bluntly, at least within the remit of limiting, controlling and sending signals to students. Surely what we want is maximum application, so that the institutions have the maximum number to choose the best from. It is not obvious to me, from a system level, why it is in any of our interests to artificially reduce the number of applications or to do anything that limits numbers, until the institution says that there are 100, 200 or 500 fabulous candidates.

One of the metrics we monitor at GSK is the number of applicants. Every year, we get thousands more applicants than we could possibly deal with, but we would never dream of trying to stop people applying, because somewhere in those thousands of applicants there is an amazing talent. It seems to me that this whole debate slightly misses the fact that we have two layers of institutions—companies and universities—that are tasked and ought to be tasked to only bring in the highest quality that they can find. That seems to be a much more effective line of defence, if you want to describe it that way, which is subtly the way in which all this is being done. Actually, it is a very effective mechanism.

**Lord Patel:** Is the constraint not then that they have to go through the border agencies to sort out language, visas and to convince them that they have enough money to come here? That presumably takes place at the same time or before they apply to universities.

**Sir Andrew Witty:** We can compare this with other countries—the US is a very good example. In the US you have to show that you have an offer from a legitimate institution and you have the financial means to pay whatever the fees are, so there is a minimal chance of you becoming reliant on the state. That is it. That is from a country that is fairly famous for its border controls.

**The Chairman:** We need to draw this session to a close. I would like to thank our three witnesses very much indeed for your very helpful responses to our questions. You will in due course receive a transcript in draft form for you to make editorial changes, if you wish. Also, if there are any points that we have not asked or that we did not give you a chance to

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cover in enough detail, please feel free to write in with further information and we will include that in our published record of our evidence. Thank you very much.