International Science, Technology, Engineering and Mathematics (STEM) students

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NOTE: Evidence is published online at www.parliament.uk/hlscience and available for inspection at the Parliamentary Archives (020 7219 5314)

References in footnotes to the Report are as follows:
Q refers to a question in oral evidence;
Witness names without a question reference refer to written evidence
SUMMARY

The worldwide competition to attract the very best Science, Technology, Engineering and Mathematics (STEM) students is increasing. Higher education institutions (HEIs) across the globe are constantly striving to improve their offer and attract the best STEM students to their campuses. In particular, countries such as Australia, the USA and Canada are working hard and successfully to attract students. Attracting able STEM students from overseas is of vital importance to UK HEIs, domestic students and UK plc. International students (students from outside the European Economic Area) enrich the experience of domestic students, can provide skills needed for the growth and future of the UK economy and also help to cast the UK in a good light when they return to their country of origin—contributing to the UK’s ‘soft power’. Moreover, they contribute very significantly to university finances, often partly subsidising courses for domestic students, and they even sustain some courses of importance to the UK that would not be viable without their participation.

The number of international STEM students choosing to study in the UK has fallen over recent years (by 8% in 2011/12 and a further 2% in 2012/13) and the total number across all disciplines fell by 1% in 2012/13. A variety of factors may contribute to this decline, and it is difficult to tease out the motivations of prospective international students with any great certainty. Nevertheless, the evidence we received in this inquiry suggested that changes to the immigration rules may well be deterring students from choosing to study in the UK. In particular, there has been a collapse in the number of Indian STEM students choosing to come and study in the UK (down by 38% in 2011/12 and a further 28% in 2012/13).

It was put to us on numerous occasions that it was not the immigration rules as such that were deterring students, but their perception of the rules as a result of overblown rhetoric from Ministers and sometimes inflammatory media coverage in the UK and in overseas countries. The UK was seen as a destination that was unwelcoming to some international students. Social media were identified as one reason why negative images could now spread very rapidly. For young, inexperienced students, perception of a situation is key, and we would support all efforts to try and bring some more balance and consistency of messages to a debate which is often polarised and devoid of nuance. The extensive evidence we received, however, pointed to difficulties beyond simply those of perception, difficulties with some of the rules themselves, their complexity and instability. The UK’s offer to prospective international students remains a good one; it is founded on academic excellence, but it has been diminished by perceived and real barriers so that the overall offer is not as competitive as it needs to be.

Above all, we are concerned that Government policy is contradictory. The Government are simultaneously committed to reducing net migration and attracting increasing numbers of international students (15–20% over the next five years). This contradiction could be resolved if the Government removed students from the net migration figures. Students comprise a majority of non-EU immigrants, so it follows that the net migration target can only be met by reducing the number of international students coming to the UK—contrary to the Government’s stated policy to grow numbers of international students. Despite repeated invitations, however, the Government have refused to remove students
from the net migration figures, arguing that they are complying with the international standard approach as set out by the United Nations. We recommend, at the very least, that when the Government present the net migration figures, they should clearly state what proportion of the sum is students and they should not include student numbers for immigration policy making purposes. Including students, who bring so much to the UK economy, in the net migration figures, sees them used as a feedstock for an all too often highly politicised and sometime toxic debate over immigration.

We heard repeated concerns about the immigration rules, their implementation and perceptions of them. In this context, our attention was specifically drawn to the arrangements governing the ability of international students to work in the UK after they have completed their studies. We were told that the four months granted to international students to find work after completing their final exams was far too short and compared very unfavourably with the UK’s major competitors. These arrangements influence the decision of STEM students as to where to study, particularly for those who must fund their own studies. As a result of the last factor, prospective international students, particularly from India, are looking elsewhere. The provisions for STEM students to work in the UK following completion of their studies also has an impact on employers, who are losing out on highly valued and scarce skills. It is particularly an issue for Small and Medium Enterprises (SMEs) who often do not have the capacity or experience to respond to Home Office requirements on short time scales. The Government’s own studies indicate that we need more skills in the STEM area to staff our workforce than can be found in our own student population, and we recommend that the Government look again at post study work arrangements. It must be paramount that the UK economy harnesses the skills of international STEM students as they complete their studies and seek employment. The UK desperately needs engineers, for example, to help grow the economy. It is self-defeating to have a system in place which deters international STEM students from contributing to UK plc.

The Government maintain that they emphatically welcome international students; unfortunately, elements of policy and perception are working against this admirable aim. The view within Government that current policies are working well is disconnected from the concerns we repeatedly heard.
CHAPTER 1: INTRODUCTION

1. In late 2011 and across the first half of 2012, this Committee conducted a major inquiry which culminated in a report entitled, *Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects* (2nd Report of Session 2012–13, July 2012).¹ This report included a section on immigration reforms (paragraphs 215–39) in which we expressed concerns that changes to the immigration rules may reduce the number of international students choosing to come and study in the UK. Eighteen months on from expressing this concern, we decided to revisit the specific issue of immigration reforms, investigate what effect they may or may not be having on international STEM students,² and establish whether we were correct to be apprehensive.

2. International students are important to the UK for a host of reasons. In their July 2013 publication, *International Education: Global Growth and Prosperity*, the Government stated that:

   “Overseas students who come to Britain to study make a huge contribution to our economy. Each student in higher education on average pays fees of about £10,000 a year and spends more than this again while they are here. In 2011/12 we estimate that overseas students studying in higher education in the UK paid £10.2bn in tuition fees and living expenses [£3.9bn in tuition fees (net of scholarships) and £6.3bn in living expenses]. They boost the local economy where they study—as well as enhancing our cultural life, and broadening the educational experience of the UK students they study alongside.”³

3. The Government noted in this document that the market for international students had grown sharply in recent years and competition from other countries was increasing. Nevertheless, the Government stated that:

   “We believe it is realistic for numbers of international students in higher education to grow by 15–20% over the next five years. For this to happen we must show that the UK values international students, will provide a warm welcome and support while they are here and will keep in touch after they go home.”⁴

² The scope of this report is limited to considering the factors affecting STEM students from outside the European Economic Area. These are the students who may be affected by reforms to immigration rules. Factors influencing the decisions of EU students to come and study in the UK are not considered in this report.

4. It is against this background that we set out to follow up on our previous report and examine whether the UK is indeed providing “a warm welcome.” As Professor Finkelstein, Dean of the Faculty of Engineering Sciences, University College London, put it to us: the welcome begins “from the moment they google UK Visa”.

5. There is some difficulty in defining STEM subjects, which we identified in our previous report. In this report, as in our previous report, we have adopted a definition used by the Department for Business, Innovation and Skills (BIS) and the Higher Education Statistics Agency (HESA). This definition uses the Joint Academic Coding System (JACS) which classifies all subjects into 21 groups. Within these groups, STEM classifiers are: medicine and dentistry; subjects allied to medicine; biological sciences; veterinary science, agriculture and related subjects; physical sciences; mathematical sciences; computer science; engineering and technology; and architecture, building and planning. While our focus in this inquiry has been on STEM students, we note that many of our observations in this report may well apply to students across all disciplines.

6. We were well aware during our inquiry that some provisions in the Immigration Bill, currently before Parliament, were concerned with international students. We briefly allude to these provisions in Chapter 3, but it has not been the purpose of this inquiry to provide a parallel forum for detailed scrutiny of the Bill.

7. We would like to thank everybody who provided evidence to this short inquiry, both in writing, and in oral evidence sessions, which we held in February and March. We have not attempted to explore all the many and varied issues which were raised with us; it was simply not possible in the time available. Instead, we have focused on the key issues which were brought to our attention time and again, issues which we may very well return to in the future.

8. Finally, we are indebted to our specialist adviser for this inquiry, Professor Sir William Wakeham, whose expertise and experience greatly enhanced our work.
CHAPTER 2: BACKGROUND AND CONTEXT

Data on international student numbers

9. The number of international students coming to study in the UK has increased considerably over the last decade. As can be seen in Figure 1, however, following a period of sustained growth, in 2011/12 there was a fall of 0.4% in the total number of new international students enrolling at UK Higher Education Institutions (HEIs). This was followed in 2012/13 by a further 1% decrease in the total number of new international students. The data indicate that there has been a much larger reduction in the number of new international STEM students compared to students of other disciplines. Between 2010/11 and 2011/12 there was an 8% decrease in the number of new STEM students. This was followed by a further 2% decrease between 2011/12 and 2012/13. Meanwhile, in 2011/12 the numbers of new students of other disciplines continued to rise, but fell slightly in 2012/13.

FIGURE 1
Number of international STEM and non-STEM entrants to UK Higher Education Institutions from non-EU countries (undergraduate and postgraduate)

10. When the data are separated by level of study, it can be seen that much of the decline in total international student numbers is accounted for by fewer students taking postgraduate taught courses, particularly in STEM subjects (Figure 2). Between 2010/11 and 2011/12 the numbers of new international students taking postgraduate taught courses in STEM subjects fell by 13%. This was followed by a further fall of 3% in 2012/13. The number of new undergraduates enrolling on STEM courses fell by 5% and then 4% over the same two years. Meanwhile, the number of international postgraduate research students in STEM subjects continued to grow slowly.

6 Data represent international students studying any Higher Education qualification at a publicly funded Higher Education Institution. International students studying Higher Education qualifications at alternative providers or at Further Education Colleges are not included in these data.
FIGURE 2
Number of international STEM and non-STEM entrants to UK Higher Education Institutions from non-EU countries by level of study (undergraduate and postgraduate)

Source: Higher Education Statistics Agency—data provided by BIS.

11. Within these data, there are some large differences in the way in which different STEM subjects have been affected (Figure 3). Engineering and technology, computer science and subjects allied to medicine are the three subjects with the highest numbers of international STEM students. All three subjects have seen recent declines in the numbers of new international students taking undergraduate or postgraduate taught courses. At the same time, some other STEM subject areas have seen recent increases in the numbers of new international STEM students taking undergraduate or postgraduate taught courses.
12. Whilst the numbers of new STEM students originating from some countries are falling, the numbers from other countries are rising. Figure 4 shows total numbers of new international STEM students from the 10 countries that send most students to the UK. The Department for Business, Innovation and Skills (BIS) told us that:

“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.”

**FIGURE 4**

Total STEM entrants by country of domicile from the ten countries that send the most students to the UK (undergraduate and postgraduate)

![Graph showing total STEM entrants by country of domicile from the ten countries that send the most students to the UK from 2002/03 to 2012/13.]

*Source: Higher Education Statistics Agency—data provided by BIS.*

13. The number of students from India increased rapidly from 2003/04, reaching a peak of nearly 12,000 in 2008/09. In the last two years, there has been a dramatic fall in the number of Indian students coming to study in the UK to around 5,000 students. Although the numbers of students coming from Pakistan and Saudi Arabia are far smaller, a decline in student numbers has also been seen over the past two years. There is also a slight reduction in the number of students from Nigeria following a period of steady growth. Meanwhile, the number of students from China has increased from just below 7,000 in 2008/09 to nearly 12,500 in 2012/13. The data show a volatile recent history in student numbers from both India and China.

14. BIS told us that the STEM subjects that Indian students were most likely to study were the three which showed the greatest recent declines in numbers of new entrants: engineering and technology, computer sciences and subjects allied to medicine. BIS suggested that declining overall numbers could be explained by “an India effect that is particularly affecting those subjects within the STEM results.” A steep decline is seen in the numbers of students from India taking these subjects (Appendix 4). Meanwhile, the data from China show a large increase in the numbers of new students studying engineering and technology.

15. It is important to note that both India and China are important markets for UK universities seeking to attract international students. The population of 20–25 year olds in each country is currently over 100 million. Mr Stevens,

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7 Q 2.
8 Q 2.
9 UN Population Division.
International Students’ Officer, National Union of Students (NUS), suggested, however, that there was a risk if the UK relied on recruiting Chinese students:

“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.”

16. This is the picture at the national level. Universities of course collect their own data. There are indications in the evidence we received that universities have been affected in different ways. Some universities reported that growth in international STEM student numbers remained strong, others reported continued growth but not at the rates which might have been expected, whilst others reported plateauing or declining numbers of international STEM students.  Corresponding to the national level data, many universities reported a fall in the numbers of students from the Indian subcontinent. In some cases this fall had been compensated for by increases in the numbers of students from other countries, in particular, China. As might be expected, based on the national level data, universities with a focus on postgraduate taught courses reported declining numbers of international STEM students. There may also be other trends in how different types of university have been affected, perhaps depending on location, the types of course on offer, or their international reputation. Further analysis to understand how different types of university have been affected could be a useful addition to the evidence base.

Interpreting the data: Influencing factors

17. There are many factors which influence international students when they decide where in the world to study. During this inquiry, we heard a lot of concern about the effects of changes in the immigration rules, or of the perception that these changes have created. This section of the report begins with a description of these changes before moving on to discuss other possible influencing factors. Competition from universities in other countries is fierce and increasing. It is important to remember that there is an extent to which the global market for international students is naturally volatile. It is also important to note the difficulties in separating temporary fluctuations in numbers from altered trends and in establishing a link between cause and effect. Nevertheless, if the Government have ambitions to attract international students to study at UK universities, it is important to identify as early as possible any factors which could inhibit these ambitions.

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10 Q 19; Note: the UN Population Division data shows a 39% decline in the number of 20–24 year olds between 2010 and 2020.

11 For example: Q 65 (Professor Finkelstein); University of Oxford; University of Sheffield; Q 34 (Professor Riordan); University of Warwick; Brunel University; Coventry University; Q 33 (Professor Rippon); Q 54 (Professor Gregson).

12 For example: Q 65 (Professor MacGregor); Q 34 (Professor Riordan); Q 17 (Professor Lockett); Q 18 (Mr Bradley).

13 Q 33 (Professor Rippon); Q 54 (Professor Gregson).

14 For example, see Russell Group evidence.
The immigration rules

18. The Government have made some significant changes to the immigration rules relating to international students during this Parliament, as summarised in Figure 5.

FIGURE 5

Changes in immigration rules timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2011</td>
<td>English language requirements changed</td>
</tr>
<tr>
<td>2012</td>
<td>Deadline for sponsor accreditation</td>
</tr>
<tr>
<td>2013</td>
<td>Doctorate Extension Scheme opened</td>
</tr>
<tr>
<td>2014</td>
<td>“Genuineness test” introduced</td>
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</table>

The Home Office was invited to provide a timeline in order to guarantee accuracy. As no timeline was provided, this information has been extracted from a variety of sources.15

19. We heard concerns about the impact on students and universities of the rate at which the rules are changing. Professor Atkinson from the University of Leicester told us:

“… 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 …”16

20. The UK Deans of Science expressed similar concerns:

“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.”17


16 Q 55.

17 UK Deans of Science.
21. The Government lay statements of changes to the immigration rules before Parliament. In 2013 there were thirteen changes and so far in 2014 there have been three. As the UK Deans of Science note, not all of these are relevant to students and not all are major policy changes such as those set out in Figure 5; some make minor adjustments to the immigration rules. A sponsor must, however, keep abreast of changes to ensure that their advice to students remains relevant.

22. The Government introduced its reforms to the immigration rules for students following concerns that the system was being abused. It was intended that the timing of the major policy changes would be phased in order to give the sector time to adjust.\(^\text{18}\) The Government’s concerns centred around the private Further Education sector, which the Rt Hon Theresa May MP, Home Secretary, described as “essentially unregulated … Although some of them are legitimate, for many their product is not an education, but immigration, together with the ability to work here.”\(^\text{19}\) Theresa May also noted that: “universities, independent schools and publicly funded further education colleges mostly take their sponsorship duties seriously and act responsibly.” The measures, which the Government introduced, were clearly intended to target the problems with bogus students and certain private Further Education colleges. In this respect, the revisions to the immigration rules have clearly had an impact. The numbers of applications for visas for study at Further Education colleges\(^\text{20}\) fell by 74% between 2011 and 2013 and by 69% at English language schools.\(^\text{21}\) This represents 65,000 fewer visa applications in these categories than in 2011.

23. We commend the Government’s intention to improve standards and reduce abuse of student immigration visas. We can see that action was necessary and the steps taken have indeed reduced visa applications in the areas most open to abuse. We are concerned, however, that the tightening of the visa rules may have had unintended consequences and had impacts on bona fide students at all levels, but particularly on university students, and has certainly contributed to creating a perception that the UK is less welcoming. As recognised by the Government, the problem with abuse of the system was not with universities, who, through their recruitment procedures, took care to ensure that their offer was made to high quality students.

24. Although our report concentrates on unintended consequences for university students, it is also notable that Further Education colleges and English language courses can be an important step in recruiting international students to study at UK universities. As Mr Stevens, International Students’ Officer, National Union of Students, put it to us: “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 … [it is] what is happening at further education and before that is going to be quite critical.”\(^\text{22}\) It will therefore also

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\(^{18}\) Government further supplementary.

\(^{19}\) HC Deb, 22 March 2011, col.856.

\(^{20}\) Tertiary, Further Education or other colleges.


\(^{22}\) Q 19.
be important for the Government to carefully monitor the impacts of its immigration reforms on this sector.

As described in Box 1, in order to study in the UK, international students need a Tier 4 student visa. The Government have introduced reforms to the Tier 4 visa requirements. These reforms introduced accreditation requirements for colleges, along with changes to: the standards of English required, working rights and hours, and dependants’ sponsorship. As the Government continue to emphasise, no limit has been set on the number of student visas which can be issued.

**BOX 1**

**Visas**

People from outside the EU who wish to enter the UK to work or study must apply for a visa. Different types of visas are available, depending on the purpose of coming to the UK. Applicants must meet specified criteria, which vary depending on the type of visa. The types of visas, which are most relevant to international STEM students, or recent graduates, are briefly described below.

**Tier 1: Highly Skilled Migrants.** There are several different categories of Tier 1 visa. The category most likely to apply to recent graduates is the Graduate Entrepreneur visa, which was introduced in 2012. This applies to graduates who have “been officially endorsed as having a genuine and credible business idea,” by UK Trade and Investment (UKTI) and their Higher Education Institution. The Post Study Work visa used to operate under Tier 1, but this has now been closed.

**Tier 2: Skilled Worker.** The Tier 2 General Visa applies to those who have been offered a skilled job in the UK by a licensed employer. The total number of Tier 2 visas is capped at 20,700 places a year. Recent graduates can switch to a Tier 2 General Visa and do not count against the 20,700 limit, provided they remain in the country. They must earn a salary of at least £20,300.

**Tier 4: Student Visa.** All international students require a Tier 4 visa. To qualify for a Tier 4 General Visa, prospective students need to provide: a valid Confirmation of Acceptance for Studies (CAS) from a fully licensed Tier 4 sponsor; evidence that they have enough money to cover course fees and monthly living costs; evidence that they have a specified level of competency in the English language. Visas are usually limited to a maximum of five years, with some exceptions. PhD students can now apply for a 12 month extension to their Tier 4 visa to stay in the UK after their course has ended under the Doctorate Extension Scheme, which was introduced in 2013.

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23 Undergraduate students are permitted to work up to 20 hours a week during term time.
24 Only postgraduate students on a course longer than 12 months, or Government sponsored students, are able to sponsor their dependants to join them in the UK.
25 Q 82.
26 Gov.uk. Work Visas. [https://www.gov.uk/browse/visas-immigration/work-visas](https://www.gov.uk/browse/visas-immigration/work-visas).
**Tier 5: Temporary Worker Visa.** There are several types of Tier 5 visa. People who wish to come to the UK for a short period of time to do work experience, training, research or a fellowship through an approved government authorised exchange scheme can apply for a Tier 5 visa.30 Recent graduates can switch to a Tier 5 visa in order to do a “period of professional training relating to their degree.”31 There is no minimum salary requirement.

26. To qualify for a Tier 4 visa, the Home Office requires that prospective students provide a valid Confirmation of Acceptance for Studies (CAS) from a fully licensed Tier 4 sponsor along with evidence that they have enough money to cover course fees and monthly living costs.32 Tier 4 sponsors are required to keep records of the students they sponsor and inform the Home Office if a student fails to attend a course. Tier 4 sponsors are audited to ensure they are compliant, and can have their trusted sponsor status withdrawn if they are found to be in breach of the requirements.

27. Universities are responsible for assessing students’ academic qualifications and English language abilities before they award a CAS certificate. In addition, students need to provide their original certificates of qualification when they apply for a visa, unless they come from a ‘low risk country,’ although the criteria used to define what constitutes a low risk country are unclear.33 They may also be asked to undertake a credibility test interview. These interviews were first introduced in 2012 and have now been extended to over 100,000 interviews per year.34 Applications are refused if, on the basis of this interview, the Home Office is not satisfied that the student is genuine, if they cannot speak English to the required standard, or if the “application is shown to fall for refusal under the General Grounds for Refusal.”35

28. Previously, international students could apply for a Tier 1 Post Study Work (PSW) visa. This enabled international graduates to work in the UK for up to two years after obtaining a UK degree. The Government, however, considered that this undermined the principle that student visas are for temporary migration.37 In 2012, the Government removed the PSW route and replaced it with more selective arrangements under Tier 2.38 To qualify for a visa under this route, students must be entering a graduate level job with an offer of employment paying at least £20,300 a year. The minimum salary required varies depending on the type of job and is set at the tenth

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31 Government.


36 Tier 1 applies to “High Value Migrants.”


38 Tier 2 applies to “Skilled Workers.”
percentile of the pay distribution for UK employees in that occupation. Although the total number of Tier 2 visas is capped at 20,700 places a year, graduates transferring from a Tier 4 to a Tier 2 visa do not count against this annual limit providing they remain in the country. A Tier 4 visa typically remains valid for 4 months following the end of a course. The Rt Hon David Willetts MP, the Minister for Universities and Science, confirmed to us that the four months began from the end of the course rather than when results are published.

29. Since the removal of the PSW route, the Government have introduced a range of additional measures to allow international students to work in the UK following the completion of their studies. The Government described these measures in their written response to this inquiry:

“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).”

Other influencing factors

30. Immigration rules are not the only influence on the number of students coming to study in the UK. The Government told us that they: “do not believe that the evidence shows an adverse impact from changes to the immigration rules.” James Brokenshire MP, Minister for Immigration and Security, pointed to a 7% increase in the number of visa applications from students sponsored by universities in 2013. The number of visa applications, however, also rose in preceding years, without a corresponding increase in enrolments. It remains to be seen whether the 7% increase in applications will result in higher numbers of international students beginning courses at UK universities.

31. The Government also suggest that growth in the number of students from China, Malaysia and Hong Kong, along with the increase in the number of postgraduate research students, implies that: “the fall in international STEM students is not driven simply by changes in the immigration policy.” The Government consider that: “any impact of the visa regime on the UK’s attractiveness to international students has been marginal, and overall

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40 Q 92.

41 Government.

42 Government.

43 Q 82.

44 Government.
nothing like as significant as some of the more alarmist predictions had feared.”

32. The Government told us that they “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.”

Mr Williams, Director, Office for Life Sciences, BIS, told us that: “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.” Many witnesses suggested to us that a perception of difficulties with the immigration rules did indeed have a large influence on prospective international students.

As RCUK noted:

“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.”

33. The UK Deans of Science suggested that the rhetoric associated with the immigration debate had “a negative influence on the attractiveness of the UK as a location for higher education.”

They also pointed to negative coverage of the UK’s immigration policies, particularly in the Indian press, but also in China. The Society of Biology told us:

“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.”

34. We also heard that increased competition for international students from other countries was a potential influence on UK student numbers. As the British Council noted: “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 Russell Group stated that: “international students are, by their very nature, highly mobile; we face stiff competition to attract them to the UK.” We heard from numerous sources that countries such as the USA, Australia, Canada, Singapore and Malaysia

45 Government.

46 Government.

47 Q 8.

48 National Union of Students (NUS); Q 36 (Professor Allison); Q 46 (Professor West); Q 47 (Sir Andrew Witty); Q 75 (Professor Fuller and Professor Finkelstein).

49 RCUK.

50 UK Deans of Science.

51 Society of Biology.

52 British Council.

53 Russell Group.
were increasingly competitive destinations for international students.\textsuperscript{54} We were also told about competition from other European countries, which now offer courses taught in English in addition to more attractive visas and in some cases financial incentives.\textsuperscript{55}

35. Other factors which could influence students’ choice of where to study include currency fluctuations, tuition fees and cost of living. The Government pointed to the decline in the strength of the rupee against the pound as contributing to the decline in the number of Indian students coming to the UK, stating that: “There were also decreases in numbers of Indian students going to the USA and Australia (2010/11 to 2012/13).”\textsuperscript{56} Generally, the evidence suggested that currency fluctuations were not a major factor in explaining recent reductions in international STEM students. Daniel Stevens, NUS, pointed to more competitive offers to international students from other countries as being a greater influence than currency fluctuations.\textsuperscript{57} Professor 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, told us that the fall in numbers from India was before the loss of value of the rupee and that it was possible to see a fall in applications from India at the point the visa rules changed. Furthermore, he suggested that:

“… 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.”\textsuperscript{58}

36. Figure 6 shows the total number of students from India at HEIs in other countries.\textsuperscript{59} A breakdown by subject area is not available. Between 2010/11 and 2012/13 the UK saw a 42% decrease in the total number of Indian students, whilst the USA saw a 7% decrease. Canada has seen continuing increases in the numbers of Indian students since 2008/09, as has Germany, albeit from low starting levels. After a period of sustained growth, in 2009 Australia saw a sharp drop in the numbers of international students, including those from India.\textsuperscript{60} As the British Council told us: “It was recognised by many (including [the Australian] 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.’”\textsuperscript{61}

37. In 2012/13, Australia saw some recovery in international student numbers, including those from India. The British Council noted that “2009 coincided with tightening of the visa processes, and 2012 coincided with streamlining

\textsuperscript{54} Q 6 (Mr Williams); Q 35 (Professor Riordan); British Council; Engineering Professors’ Council; Faculty of Engineering and Physical Sciences, the University of Manchester; Imperial College London; Russell Group.

\textsuperscript{55} Council of Professors and Heads of Computing in the UK; Royal Academy of Engineering; UK Computing Research Committee.

\textsuperscript{56} Government.

\textsuperscript{57} Q 25.

\textsuperscript{58} Q 36.

\textsuperscript{59} These data are the total number of Indian students at HEIs at all stages of study; data referred to previously in this Chapter was just entrants.

\textsuperscript{60} British Council supplementary evidence.

\textsuperscript{61} British Council supplementary evidence.
of visa processes and re-introduction of post study work opportunities,” along with other measures to improve the experience of international students in Australia. These changes were put in place following the 2011 Strategic Review of the Student Visa Programme.

FIGURE 6
Total number of students (undergraduate and postgraduate) from India at Higher Education Institutions in the UK, USA, Australia, Canada and Germany

Data provided by the British Council.

38. We conclude that there are many potential factors which influence the choices of prospective international students when deciding whether to come to the UK or to study elsewhere in the world. Immigration policies are one of these factors and there is clearly genuine concern that the changes made during this Parliament are deterring students from coming to the UK. The global market for international students is extremely competitive. It is therefore important that the Government carefully and regularly review the package they are offering to international students and ensure that it enables UK universities to remain competitive in attracting international STEM students.

39. We therefore recommend that every two years the Government review comprehensively the experience offered to international students by the immigration process and assess how the rules—specifically in terms of entry and the ability of students to stay and work in the UK after completion of their studies—compare with the

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62 British Council supplementary evidence.
64 British Council supplementary evidence. Data derived from different national sources (HESA in UK, IIE Opendoors for USA, AEI in Australia, Statistics Canada, and DAAD for Germany) means that there are therefore slight differences in definitions etc. (for instance, in the UK it is students enrolled in publicly funded HE institutions; Australia has a different academic year, Germany have two categories of international student based on where the student previously went to school); and the USA count by nationality, rather than country of domicile).
UK’s competitors. The Government should publish a report to Parliament setting out in full their evidence base, analysis and findings of the review.

40. The following Chapter focuses on specific issues drawn to our attention during this inquiry and makes recommendations which would enhance the UK’s offer to international students and enable the Government to achieve their target of growing the numbers of international students in higher education by 15–20% over the next five years. Crucially, we do not believe that these recommendations will infringe on the Government’s commitment to tackle abuses in the immigration system or their commitment to reduce net migration.
CHAPTER 3: KEY ISSUES

Government policy objectives

41. The Government are committed to reducing levels of net migration. The Prime Minister, in a speech in March 2013, stated that: “net migration needs to come down radically from hundreds of thousands a year, to just tens of thousands.” At the same time, the Government have repeatedly stressed that they welcome international students and, moreover, have stated that: “it is realistic for numbers of international students in higher education to grow by 15–20% over the next five years.” These two policies are contradictory and highlight the conflicting policy objectives of different Government departments. The danger is that in trying to reduce net migration, there will be an, albeit unintended, impact on the recruitment of international students, which the Government say they wish to attract.

42. The Home Office is focused on reducing the net migration figures, which include international students, while the Department for Business, Innovation and Skills is committed to growing the numbers of international students. The Royal Academy of Engineering was 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 Higher Education by 15–20%.”

43. This tension could be resolved if international students were removed from the net migration figures. As shown in Table 1, net migration figures comprise the immigration of people from outside the EU, inside the EU and returning British nationals, minus the emigration of people from all of these categories. In 2012/13 non-EU immigration, including students stood at 244,000.

<table>
<thead>
<tr>
<th>Immigration, emigration and net migration</th>
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<tbody>
<tr>
<td><strong>Immigration</strong></td>
</tr>
<tr>
<td>Non-EU immigration</td>
</tr>
<tr>
<td>EU immigration</td>
</tr>
<tr>
<td>British immigration</td>
</tr>
<tr>
<td><strong>Emigration</strong></td>
</tr>
<tr>
<td><strong>Net migration</strong></td>
</tr>
</tbody>
</table>

Source: Office for National Statistics.

67 Royal Academy of Engineering.
44. Students make up the majority of non-EU immigrants. In 2012/13 there were nearly 172,000 non-EU entrants to courses at publicly funded UK Higher Education Institutions, although some of these students may have come to the UK in preceding years.

45. In our previous report, we considered in some detail the classification of international students as migrants (paragraphs 237–39) and recommended that: “the Government make a distinction in the immigration statistics between HE students and other immigrants and uses only the latter category to calculate net migration for policy-making purposes.” This recommendation was not accepted by the Government.

46. We have not been alone in making such a recommendation. We are one of five House of Commons and Lords select committees to have made this recommendation. In January 2013, the chairs of the five committees wrote to the Prime Minister calling on the Government to remove international students from the net migration target and arguing that, “this degree of consensus between committees of both Houses is unprecedented.” We note that last month the number of committees to make this recommendation became six, as the House of Lords Select Committee on Soft Power and the UK’s influence, chaired by Lord Howell of Guildford, recommended that the Government “should remove students from net migration targets, and publish data on how previous progress on migration targets would have looked had the Government not counted students in previous years. The Government must work harder to ensure that their efforts to cut migration by those who would not add to the UK’s wellbeing do not prevent those whose presence would further the UK’s domestic and international interests from seeing the UK as welcoming.”

47. The Government have consistently resisted removing students from net migration figures, explaining that they follow the United Nations’ definition and stressing that all migrants, students included, will impact on public services:

“The UN’s definition of net migration includes all migrants changing their place of residence for 12 months or more. This acknowledges that all migrants, students included, have an impact on communities, services and infrastructure for the time they are here. Of course, net migration measures the difference between the number of people coming to the UK and the number leaving, so where students return home after their studies, their impact on long-term net migration is minimal. Improvements to ONS (Office of National Statistics)
methodology will make it possible, in due course, to determine with
greater certainty how many students fall into this category, and how
many stay for longer periods.\textsuperscript{72}

48. Whilst we look forward to improvements to ONS methodology—it would be
highly desirable if it were possible to have a better understanding of students’
movements—we remain perplexed by the Home Office’s stance. A more
nuanced approach to immigration figures would support policies from the
Department for Business, Innovation and Skills aimed at attracting
international students to the UK.

49. During this follow-up inquiry, we have been repeatedly told that the
Government should remove international students from the net migration
target. The British Council, which \textquoteleft supports the exchange and mobility of
students, scholars and academics into and from the UK ... plays a leading
role in promoting UK HEIs to international students ... and presents the UK
as an attractive destination to prospective students,\textsuperscript{73} told us:

\textquoteleft 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.\textsuperscript{74}

50. The Russell Group put it to us that:

\textquoteleft \ldots the fact that students are still included in the net migration target
could lead to the perception that the UK is not \textquoteleft open for business',
affecting the UK’s ability to compete effectively in the international
education market.\textsuperscript{75}

51. Universities UK explained that: \textquoteleft 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.\textsuperscript{76} We agree with
this view. Government policy is contradictory with policies and departments
pulling in different directions. Students, who are generally temporary
migrants—most return to their countries of origin soon after completing their
studies—should be taken out of the immigration debate. We believe that it
would be squarely in the Government’s interest to adopt a more nuanced
approach to the immigration statistics and as a result a more mature
appreciation of how different migrants contribute to the UK.

52. The Government have argued consistently that they should follow the UN’s
definition of net migration when compiling immigration statistics and the net
migration target. They have argued so in the past, however, against a

\textsuperscript{72} Supplementary evidence from the Home Office to the House of Lords Committee on Soft Power and the
UK’s influence. Available online: \url{http://www.parliament.uk/documents/lords-committees/soft-power-uk-
influence/SoftPowerEvVol1-as-of-12March.pdf}.

\textsuperscript{73} British Council.

\textsuperscript{74} British Council.

\textsuperscript{75} Russell Group.

\textsuperscript{76} Universities UK.
background of rising numbers of international students choosing to study in the UK. This is no longer the case and there is evidence that prospective students are being deterred from coming to study in the UK due to the polarising and occasionally toxic debate over immigration in which international students are unjustly caught up.

53. We recommend that the Government distinguish in the immigration statistics and the net migration target between students—holding Tier 4 visas—and other immigrants. In addition, the Government should treat student numbers separately for immigration policy making purposes.

Tier 4 student visa requirements

54. As described in Chapter 2 of this report, during this Parliament there have been a number of changes to the immigration rules affecting international students. We received evidence that in some cases these changes are deterring international STEM students from applying to study the UK. We also heard from universities that in some cases immigration rules are preventing them from recruiting the best students, who then go on to study in competitor countries. This section of the report sets out some of the evidence we received about issues associated with the Tier 4 student visa requirements.

55. We heard concerns about the increasing costs of Tier 4 visas. The Engineering Professors’ Council expressed concern that the costs of a Tier 4 visa are set to increase by 10% each year for the next two years.77 Others pointed to the relatively high charges for visas in the UK78 as illustrated in Table 2.

### TABLE 2

**Comparison of student visa fees in the UK and nine competitor countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Cost of basic international student visa79</th>
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<tbody>
<tr>
<td>Australia</td>
<td>£317 (AU$535)</td>
</tr>
<tr>
<td>UK</td>
<td>£298 (with an increase to £310 in April 2014)</td>
</tr>
<tr>
<td>US</td>
<td>£224 (Basic fee $160 and SEVIS administration fee $200)</td>
</tr>
<tr>
<td>Denmark</td>
<td>£188 (£224)</td>
</tr>
<tr>
<td>New Zealand</td>
<td>£141 (NZ$270)</td>
</tr>
<tr>
<td>France</td>
<td>£132 (£9980 + £58 excise stamp fee)</td>
</tr>
<tr>
<td>Sweden</td>
<td>£96 (SEK 1,000)</td>
</tr>
<tr>
<td>Ireland</td>
<td>£84 (£100 multiple entry visa)</td>
</tr>
<tr>
<td>Canada</td>
<td>£74 (CAD$125)</td>
</tr>
<tr>
<td>Germany</td>
<td>£50 (£60)</td>
</tr>
</tbody>
</table>

77 Engineering Professors’ Council.
78 Q 62 (Sir Peter Gregson); Russell Group.
79 Based on exchange rate on 6 November 2013.
80 The long stay student visa is renewable annually at a cost of €30.
56. In 2012, the Home Office introduced credibility interviews, which were intended to counter problems with bogus students. We heard concerns, however, that genuine students were also being adversely affected by such interviews, or were being deterred from applying. Million+ pointed to visas being refused on arbitrary grounds and suggested:

“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.”

57. The National Union of Students told us that:

“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.”

58. In 2011, the Government introduced the requirement that students applying for Tier 4 visas must show academic progression. This was intended to prevent students from “staying for years and years by changing courses, often without showing any tangible academic progress.” We heard, however, that this requirement was also causing problems for universities wishing to offer places to genuine students:

“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.”

59. The UK Deans of Science also identified the academic progression rule as a problem, particularly in STEM subjects:

“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.”

60. The University of Oxford told us:

“The academic progression requirement that students need to progress to a higher degree based on the relevant NQF level, to extend a visa or

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81 Million+.
82 NUS.
83 HC Deb, 22 March 2011, col.857.
84 Brunel University.
85 UK Deans of Science.
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.86

61. In 2012, the Government introduced a five year limit on the length of a student visa, with exceptions for PhD and longer professional qualification courses. In their evidence, the Government stated that: “those studying the following STEM subjects: architecture; medicine; dentistry; veterinary medicine and science are exempted from the time limit on study.” Despite this, we received some reports of problems with restrictions on the length of student visas.87 The National Union of Students told us that: “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.”88

62. Another issue was that of international students being unable to interrupt their studies for medical or personal reasons without forfeiting their visa. Brunel University told us that as a result: “we have students here struggling to keep up… who really should be taking time out… 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.”89 Cancer Research UK told us: “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 …”90

63. In addition to problems with the immigration rules themselves, we also heard about problems with the way the rules are implemented and processes associated with the rules. We heard examples of cases where visas had been refused for seemingly trivial reasons. For example, Professor Rippon, from Aston University, told the Committee of a case where a visa was refused because a student had the correct funds in their bank account for 27 rather than 28 days.91 Professor Riordan noted a similar issue with a student whose bank balance dipped £20 below the required level owing to a delayed bank transfer.92

64. After a visa has been granted, students may also experience problems. The National Union of Students told us of cases where students had to queue overnight to register with the police and questioned the criteria used to identify ‘high risk’ countries.93 However, Professor Finkelstein, Dean of the Faculty of Engineering Sciences, University College London told us: “After

86 University of Oxford.
87 Pharmacy Schools Council; University of Oxford.
88 NUS.
89 Brunel University.
90 Cancer Research UK.
91 Q 36.
92 Q 36.
93 NUS; NUS supplementary evidence.
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."94 Professor Fuller, Head of the Graduate School (Research and Innovation) at Plymouth University, told us:

“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 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 …”95

65. In 2011, the Government introduced the requirement for sponsors of student visas to hold Highly Trusted Status. In 2012, London Metropolitan University had its license revoked. HEFCE noted that this occurred at the busiest point in the academic cycle and that it had a “damaging effect on the UK’s reputation as a place of study for international students.”96 The British Council described “countering the negative international press coverage [of the case as] a real challenge.”97 The National Union of Students expressed concerns about how “revocation of an institution’s highly trusted sponsor status is handled.”98

66. The evidence we received suggested that universities may be fearful of being judged as non-compliant with the Highly Trusted Sponsor requirements:

“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.”99

67. We heard that some universities have therefore adopted extreme measures in order to ensure that they meet sponsor compliance requirements.100 For example, the National Union of Students told us of cases where international PhD students were required to travel long distances to have their passport checked at a different campus or where international students had their fingerprints taken before each lecture to monitor attendance.101

68. We received evidence of problems with the Tier 4 immigration rules, the way in which the rules are implemented, and the processes associated with the rules. We recognise that the Government’s intention is to target bogus students whilst continuing to attract high quality international students. We suggest, however, that there have been unintended consequences of some of the changes made to the Tier 4 visa rules and processes.

94 Q 75.
95 Q 75.
96 HEFCE.
97 British Council.
98 NUS.
99 Imperial College London.
100 Million +.
101 NUS.
69. **We recommend that the Home Office, together with BIS, take immediate steps to streamline the Tier 4 visa process, remove unnecessary obstacles and improve the experience for international students from the point of application to departure.**

70. **In particular, we recommend that the Government: bring the costs of applying for a Tier 4 visa in line with the UK’s competitor countries; improve the training and guidance given to staff conducting credibility interviews; ensure that international students who need to interrupt their studies for personal or medical reasons are able to resume their studies afterwards; and ensure that their own rules for academic progression within the visa process do not inhibit legitimate transfers between courses for the purposes of gaining new skills.**

71. **We also recommend that universities adopt a proportionate approach to the management of the risks to their Trusted Sponsor status.**

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**Academic Technology Approval Scheme (ATAS)**

72. The Academic Technology Approval Scheme[^102] is a scheme designed to ensure that those applying for postgraduate study in certain sensitive subjects do not acquire knowledge that could potentially be used in Weapons of Mass Destruction programmes. The sensitive subjects listed cover a very wide range of different subject areas, from Botany to Artificial Intelligence.[^103] We heard of significant concerns about the scheme:

> “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.”[^104]

73. Professor Sir Peter Gregson, Chief Executive and Vice-Chancellor, Cranfield University, told us about the difficulties that ATAS presented to his institution:

> “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 … we are finding it more challenging when we are trying to present a welcoming front internationally … 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.”[^105]

74. Similar views were widely reflected in the evidence we received. The University of Oxford pointed to: “delays of up to 30 days in the processing of ATAS applications, which meant that a few students were late starting their

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[^102]: Gov.uk Academic Technology Approval Scheme: [https://www.gov.uk/academic-technology-approval-scheme](https://www.gov.uk/academic-technology-approval-scheme) (accessed April 2014).


[^104]: iCHEMe.

[^105]: Q 55.
studies,” and also called for greater transparency.\footnote{University of Oxford.} The University of Manchester told us that the problems in part resulted from the scheme being inadequately supported and staffed. Imperial College London expressed major concerns:

“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.”

75. Imperial noted that the Academic Registrars Council (ARC) has been in dialogue with ATAS representatives and has identified a number of key questions. These included the need for: clarification as to which subjects are covered by ATAS; improved turnaround times; and streamlining of the ATAS process.\footnote{Imperial College London.}

76. Whilst it is of course important to have an effective scheme in place for security purposes, it would seem that there are some problems with ATAS and it is not working well for significant actors in the STEM community. These concerns about the scheme are serious and worrying. ATAS is seemingly not always well understood, under-resourced, bureaucratic and inconsistent. Moreover, it may be resulting in some high quality applicants being lost and choosing to study elsewhere in the world.

77. \textbf{We recommend that the Government immediately improve the design and operation of the Academic Technology Approval Scheme so that it is fit for purpose. We recommend that the scheme is better resourced, particularly for the period in the year when it is most in demand, streamlined and explained much more clearly to both universities and applicants.}

\textbf{Post Study Work Route (PSW)}

78. In our previous inquiry, we received a good deal of evidence expressing concern about the closure of the post study work route (PSW) (paragraphs 226–27). The PSW visa gave international graduates the right to remain in the UK to work for up to two years after obtaining a UK degree.\footnote{Home Office (2013) \textit{Tier 1 (Post-Study Work) of the Points Based System—Policy. Guidance:} https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/261421/tier1poststudyworkguidance1.pdf.} After this time, a graduate would usually need to seek sponsorship from their employer for a Tier 2 visa.

79. In our previous inquiry, we were told that the PSW route was highly valued by international students as a way of gaining work experience before often returning to their countries of origin. In 2012, the PSW route was closed and replaced with more selective arrangements under Tier 2, notably making a job offer paying more than £20,000 a year a requirement for a visa. In addition, the period during which graduate level employment could be sought was cut from two years to a period of four months after course completion. In our previous inquiry, several witnesses suggested that this could make it much more difficult for talented international graduates of UK universities to enter the UK workforce. Moreover, at this time we heard that
it may act as a deterrent in terms of prospective students deciding to come to the UK to study.

80. In 2012, the Home Office told us that the £20,000 threshold had been set following guidance from the Migration Advisory Committee. In our previous report we recommended that the Migration Advisory Committee review the £20,000 threshold and monitor the impact of the changes on both the number of graduates who stay on to work in the UK and on the number who decide not to study here. The Government, in their response, stated that they had asked the Migration Advisory Committee to review the Tier 2 Codes of Practice which set minimum appropriate pay rates by occupation above the general minimum level of £20,000. In addition, the Government stated that they would monitor the numbers switching from a Tier 4 student visa to Tier 2 on completion of their studies, noting, however, that it would be difficult to identify easily those students who had decided not to study in the UK because of the reforms to PSW as there were many reasons that international students considered when choosing where to study. As well as closely monitoring the impact of immigration reforms, the Government said that they would be looking closely at the experience of other countries and the measures they were taking to attract international students.

81. Against this background, we sought evidence in this follow-up inquiry on the PSW route. It was quickly apparent to us that it was a major issue. The National Union of Students, for example, told us that:

“... the incentives the UK offered have 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.”

82. At the same time, we heard that the opportunity to work abroad for a period of time following graduation was highly valued by international students and influenced their decision on where to choose to study.

83. There may be differences in how important the post study work arrangements are for prospective international students coming from different countries. Mr Williams, Director, Office for Life Sciences, BIS, suggested that:

“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.”

84. The suspicion that the Indian sub-continent had been particularly affected was supported by the Engineering Professors’ Council, who told us: “Students are often seeking to gain some work experience to go along with their investment in a UK education.” The Russell Group suggested that

109 NUS.
110 NUS.
111 Q 6.
112 Engineering Professors’ Council.
“one of the reasons for the fall in international student numbers from countries such as India is the reduction of the post-study work period from 2 years to 4 months.”

85. Professor Atkinson, CBE, FREng, 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, offered further explanation. She suggested that Indian students were particularly affected as they were often self funding, taking out a personal loan to pay for their studies and that working in the UK after completing their studies enabled them to repay some of the loan and gain valuable experience. Professor Atkinson suggested students from other countries, in receipt of bursaries from their Government, or coming from prosperous families, would not be deterred in the same way:

“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 …”

86. Professor Atkinson noted that the undergraduate market had not been affected to the same extent because students were generally sponsored by their Governments or might come from more prosperous families: “…there is a strong view across the sector, particularly from those who are at the coalface of international recruitment, that [this is why] the removal of post-study work has had a big effect on postgraduate taught recruitment rather than the undergraduate cohort.”

87. We heard that the UK’s post study work offer is no longer competitive against that of other countries. The Russell Group told us that the UK has: “one of the shortest post-study work periods for international students among key English-speaking and European markets.” Table 3 provides a comparison of post study work periods in the UK and seven competitor countries. It illustrates that the countries which compete with the UK for international students have much more flexible post study work policies.

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113 Russell Group.
114 Q 55.
115 Q 55.
116 Russell Group.
**Table 3**

Comparison of post study work periods in the UK and seven competitor countries\(^{117}\)

<table>
<thead>
<tr>
<th></th>
<th>Length of time</th>
<th>Restrictions/benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UK</strong></td>
<td>4 months [from the end of the course](^{118})</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Denmark</strong></td>
<td>6 months with an option to extend for a further 6 months once only.</td>
<td>During the 6 month period post-study, graduates can seek employment and work up to 15 hours a week, as well as full-time during the months of June, July and August.</td>
</tr>
<tr>
<td><strong>Ireland</strong></td>
<td>12 months</td>
<td>Graduates can work up to 40 hours a week under student visa arrangements and/or seek employment and apply for further permission to remain.</td>
</tr>
<tr>
<td>(Graduate employment scheme)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>France</strong></td>
<td>12 months</td>
<td>Masters graduates or above can work in any salaried job for up to 60% of the official work week.</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>18 months</td>
<td>No limit on number of hours that can be worked during this period.</td>
</tr>
</tbody>
</table>

\(^{117}\) Table provided by the Russell Group. It 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.

\(^{118}\) Q 92 (Minister for Universities and Science, Rt Hon David Willetts MP).
<table>
<thead>
<tr>
<th>Region</th>
<th>Length of time</th>
<th>Restrictions/benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US</strong></td>
<td>12 months / 29 months for STEM graduates.</td>
<td>Under Optional Practical Training, a graduate can undertake temporary work related to their major or course of study. Available to Bachelors, Masters graduates and above, with the option to undertake another 12 months following a further level of study.</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td>Between 8 months and 3 years dependent on duration of course studied.</td>
<td>Must have studied on a programme longer than 8 months on a full time basis. Some restrictions for those who have received scholarship funding.</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td>Between 18 months and 4 years dependent on visa stream and length of study.</td>
<td>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.</td>
</tr>
</tbody>
</table>

88. For example, we heard about the flexibility of post study work arrangements in the USA where students:

“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.”

89. We heard that the removal of the PSW visa is causing problems for employers. Mr Lockett, Pro-Dean, Faculty of Engineering, Science and the Built Environment, London South Bank University, explained how the new system differed from the previous PSW and the bureaucratic burden had been increased:

“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.”

90. The Recruitment and Employment Confederation told us that their 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.” Mr Thomas, Head of Employment and Skills Policy, EEF (the manufacturers’ organisation, formerly the Engineering Employers’ Federation), told us that the four month period caused difficulties for employers, specifically on account of the need to obtain a sponsorship license. Employers wishing to employ non-EEA graduates need a sponsorship license. The types of job that the employer offers must be classified as a graduate level job. UKVI (UK Visas and Immigration, formerly the UK Border Agency) provides a 144 page guidance document for businesses wishing to apply for licenses to sponsor Tier 2 or Tier 5 visas. UKVI state that eight out of ten applications are dealt with in less than eight weeks.

91. The Recruitment and Employment Confederation note that: “it is extremely difficult to convince employers to sponsor [students] through Tier 2, given the cost, complexity and uncertainty of the process.” EEF told us that whilst large companies with substantial resources and knowledge of the immigration system might deem four months to be a satisfactory period of time to get sponsorship, small and medium sized enterprises (SMEs) would struggle much more:

“Whilst non-EEA graduates retain the opportunity to switch from Tier 4 (Student) to Tier 2 (Highly-skilled migrant) 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.

119 Q 46 (Sir Andrew Witty).
120 Q 23.
121 REC.
122 Q 56.
124 Gov.uk, UK visa sponsorship for employers; Apply for your license: https://www.gov.uk/uk-visa-sponsorship-employers/apply-for-your-licence (accessed April 2014).
125 REC.
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. ¹²⁶

92. Mr Thomas, EEF, told us that business found “navigating the immigration system costly, painful and expensive” and that “the impression that they have from navigating the system and the inspections is one again of guilty until proven innocent.”¹²⁷

93. Sir Andrew Witty, Chancellor of the University of Nottingham and Chief Executive of GlaxoSmithKline (GSK), told us that the new arrangements were:

“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.”¹²⁸

94. Mr Thomas told us that around 70% of EEF’s members had taken external advice on the immigration system and that this was necessary “to have any realistic chance of navigating this system … which adds substantially to the cost of the exercise …” He considered, “it must be baffling to anyone who does not have a fair degree of existing knowledge.”¹²⁹ The Engineering Professors Council told us: “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.”¹³⁰ Meanwhile EEF called on government to make it simpler for manufacturers to recruit non-EEA students and pointed to the results of their recent survey showing:

“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.”¹³¹

95. The Confederation of British Industry called for customer service, communications and processing times for sponsorship licenses to be improved:

“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.”¹³²

¹²⁶ EEF.
¹²⁷ Q 58.
¹²⁸ Q 46.
¹²⁹ Q 56.
¹³⁰ Engineering Professors’ Council.
¹³¹ EEF.
¹³² Confederation of British Industry.
96. The Government maintained that: “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.”

97. A large volume of evidence urged the Government to review the post study work arrangements and increase the length of time available to students to seek work. 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, put it to us that:

“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.”

98. Sir Andrew Witty, Chancellor of the University of Nottingham and Chief Executive of GlaxoSmithKline (GSK), argued that four months was an inadequate amount of time and that students should have a year’s grace:

“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 forever, 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 … I do not think it should be too long, but it feels to me that four months is too short. A year feels sensible.”

99. Sir Andrew Witty and Professor Gelenbe, Department of Electrical and Electronic Engineering, Imperial College London and member of the UK Computing Research Committee, both expressed concern that the four month period was distracting students from their studies:

“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.”

100. It is also notable that the four month period begins from the end of the course rather than when results are published. This may cause difficulties as employers may wish to be clear about actual rather than putative qualifications.

101. In addition to reported difficulties with the post study work period, we also heard about problems with the minimum salary requirements. To qualify for a Tier 2 visa, students must secure a job with a minimum salary of at least
£20,300 per annum. Universities UK explained that, whilst the minimum salary was £20,300:

“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.”

102. Professor Rippon, Pro Vice-Chancellor for International Relations, Aston University, told us that the minimum salary requirements caused a significant problem for their graduates in subjects allied to medicine.

“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-registration student is going to be able to command a salary like that.”

103. The Faculty of Engineering and Physical Sciences at the University of Manchester also raised concerns about the Tier 2 threshold of £20,300. They told us that in 2013/14:

“… 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. Within this analysis there were over 200 IT graduate positions advertised that did not meet the minimum salary level for Tier 2 sponsorship. 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.”

104. The Confederation of British Industry suggested to us, however, that the minimum salary should not cause significant difficulties across STEM as a whole: “the minimum salary level should not cause significant difficulties in STEM sectors, given STEM graduates have higher earnings on average than non-STEM graduates.” We suggest that the evidence we received casts doubt on this assertion.

105. Following the closure of the PSW route, the Government have introduced measures to allow international STEM graduates to stay and work in the UK. As described in Chapter 2, these include the Graduate Entrepreneur scheme, the Doctorate Extension Scheme and provision to switch to Tier 5.

106. The evidence we received, however, indicated some scepticism about the success of these measures. Universities UK expressed concern about the administrative burden placed on universities, who are required to sponsor graduates on the Doctorate Extension Scheme and were: “unclear as to the
purpose or benefits of such continued sponsorship arrangements.”

EEF told us that although the Government have made it easier for graduate entrepreneurs to switch to Tier 2 or Tier 5 “we do not see this having any real impact on manufacturers’ ability to fill their vacancies.”

The University of Manchester described the Tier 5 route as “unpopular with both our students and employers … We are not familiar with any students actually taking a Tier 5 experience at Manchester.”

Aston University indicated that there could be challenges in finding organisations which would act as sponsors.

Sir Andrew Witty suggested that the entrepreneurial exemption “… 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 …” He suggested that: “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.”

It is not clear to us that the various measures introduced by the Government compensate for the simplicity and attractiveness of the previous PSW. We also note that Migration Watch UK do not perceive any significant immigration risk in reinstating the PSW for STEM students.

“The [PSW] scheme was described by the independent Migration Advisory Committee as ‘probably one of the most generous schemes of its type in the world’. … 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.”

In conclusion, it is clear to us that the closure of the previous post study work route has had a deleterious effect on international students. Four months is too short a post study work period and it is at least questionable whether £20,300 is an appropriate figure across all STEM disciplines. It is also unclear how this figure was arrived at. The previous post study work route was simple and competitive; current arrangements are far less so.

We therefore recommend that the Government immediately reinstate the previous post study work route as it was simple, competitive and effectively enabled qualified STEM students access to the UK jobs market. If the Government do not agree with this recommendation they should explain why this is the case to Parliament and, within current arrangements, at least review the appropriateness of the £20,300 starting salary figure across all STEM disciplines and the

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144 Universities UK.
145 EEF.
146 University of Manchester.
147 Q 34 (Professor Rippon).
148 Q 46 (Sir Andrew Witty).
150 Migration Watch UK.
length of time afforded to STEM graduates to seek work in the UK. The review should be completed by autumn 2014 and a report to Parliament published.

Taught Masters

111. In our previous report (paragraphs 240–51), we noted a potential compound effect of policy reforms on the provision of taught Masters courses in the UK. We observed that the new higher fees regime, combined with a lack of student finance, could deter UK students from taking taught Masters courses, whilst changes to immigration rules could deter international students. We also noted that by the time the effect is quantified and analysed it may be too late to take remedial action. We called on the Government to set up an expert group to consider the supply and demand for postgraduate provision. The Government declined to establish a group to undertake this function. The Government instead told us that HEFCE’s work, involving stakeholders, would be sufficient to “identify any potential mismatch between supply and demand for postgraduate provision, including in STEM disciplines.”

112. In their submission to this follow-up inquiry, HEFCE told us that: “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.” HEFCE also noted that since 2010/11 there had been a 3% decline in the total number of new students taking postgraduate taught courses in all subjects, but a larger 20% decline in the number of new students taking postgraduate taught courses in STEM subjects. Figure 2 in Chapter 2 of this report provides further information on the changes in numbers of postgraduate taught students. Despite these changes, in their evidence to this inquiry, HEFCE reported that they were: “… not aware of any HE (Higher Education) 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.”

113. HEFCE noted an apparent reliance on international students in some subjects, particularly at the Masters level. They did not consider any subject area to be at immediate risk at the national level, but noted the need for continued monitoring.

114. Nonetheless, during this inquiry, we heard that postgraduate taught (PGT) courses in some STEM subjects were vulnerable to declining international student numbers. The Science Council expressed ongoing concerns that the combined effects of the withdrawal of funding together with negative perceptions of current immigration policies: “threatens the sustainability of many postgraduate courses …” and that this would also impact on UK students. The British Council warned that:

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152 HEFCE.
153 HEFCE.
154 Science Council.
“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.”\(^{155}\)

115. The University of Leicester suggested that postgraduate taught courses had been particularly severely affected because:

“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 … 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.”\(^{156}\)

116. Whilst universities are able to respond to a changing market and are free to determine which courses they offer, we heard that declining numbers of international students risked making the provision of some STEM courses unviable. At a national level, nearly half of all students on computer sciences and engineering and technology postgraduate taught courses are international students.\(^{157}\) Professor Atkinson noted that falling international student numbers on postgraduate taught courses was bound to affect the financial situation of university departments.\(^{158}\) Mr Bradley from the University of Manchester told us that whilst in the short term falling numbers of international student numbers were not threatening the viability of courses: “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.”\(^{159}\) Imperial College did not report problems with recruitment of international students, but noted that up to one-third of their Masters courses were reliant on international students to remain economically viable. Meanwhile, we learnt that Aston University had seen a 70% fall in numbers of taught postgraduate international students since 2009.\(^{160}\) Brunel University told us that falling overseas numbers could jeopardise important courses for domestic/EU students:

“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.”\(^{161}\)

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\(^{155}\) British Council.

\(^{156}\) University of Leicester.

\(^{157}\) UK Deans of Science.

\(^{158}\) Q 54.

\(^{159}\) Q 20.

\(^{160}\) Q 33.

\(^{161}\) Brunel University.
We heard that taught Masters courses in certain STEM subjects were particularly vulnerable to declining international student numbers:

“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.”162

118. The Institution of Chemical Engineers suggested that the quality of chemical engineering courses could be threatened by a reduction in the numbers of international students and the corresponding loss of revenue. Professor Atkinson, Leicester University, pointed out that:

“Engineering is distinctly affected as opposed to the other physical sciences, because there is a tradition of recruiting postgraduate taught students in engineering … 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.”163

As the British Council told us, UK universities also rely on their postgraduate taught programmes to support their research programmes.164

119. It is clear from the evidence that international students often make up a high proportion of students enrolled on STEM taught Masters courses. In some subject areas and at some institutions this can be more than half of the students enrolled on a course. The evidence suggested that postgraduate taught courses are particularly vulnerable to changing market conditions and are threatened not only by changes to immigration rules, but also by changes to funding, fees and student finance. Taught Masters are important to the health of research at UK universities and also to UK employers seeking to recruit skilled STEM professionals. Employers need a training pipeline equipped to supply these skilled professionals.

120. **We recommend that BIS immediately establishes a working group to review the impact of actual, and potential, reductions in the numbers of international students on the provision, sustainability and quality of taught Masters courses in STEM subjects in the UK. BIS should ensure that UK and international students continue to have access to taught Masters courses in order to meet the needs of the industrial strategy, health strategy and wider national interests. This working group should include representation from HEFCE, industry and the Higher Education sector. The group should report by autumn 2014 and publish its findings openly.**

**Policy Stability**

121. As set out in Chapter 2, there has been a great deal of change in immigration policy over recent years. We were told that frequent changes to the rules and
the lack of stability were making it difficult for institutions and students to keep abreast of the latest developments and plan accordingly. The British Council told us that:

“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.”165

122. Sir Andrew Witty, Chancellor of the University of Nottingham and Chief Executive of GlaxoSmithKline (GSK), put it to us that:

“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.”166

123. Professor West, Vice-Chancellor, University of West England, and Chair of Universities UK’s Health Policy Network, put it in the following terms:

“The change element … 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.”167

124. Professor Atkinson stressed how difficult it was for students and academics alike to keep track of the rules.168 The NUS told us that: “International students have no certainty if the rules will change during the duration of their studies.”169 We heard that shifting rules had ‘moved the goalposts’ and had a serious impact on students’ education. When changes to immigration rules are made part way through a student’s course, this can have a major impact on individuals or groups of students. The evidence we received contained several examples of such cases, three of which are provided in Boxes 2 and 3 as illustrative case studies.

**BOX 2**

**The impact of changing immigration rules**

<table>
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<tr>
<th>Changes in immigration rules can have major impacts on students who are part way through a course when the change takes place. For example, we heard about:</th>
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<tr>
<td>“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</td>
</tr>
</tbody>
</table>

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165 British Council.
166 Q 46.
167 Q 46.
168 Q 55.
169 NUS.
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.”

We also received an individual account from a student affected by this change, who told us: “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.”

BOX 3

The impact of changing immigration rules

If not properly managed, changes to immigration rules can have very significant impacts on individuals. We heard about the case of a Canadian medical student, training in the UK: “… in September 2004, I began my undergraduate medical education at King’s College, 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.”

After eight years studying in the UK, however, this student was advised to take time out to complete the Canadian Medical Board examinations to allow her to practice in Canada, should she ever wish to do so: “However, what was unclear to both the advisors … 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 … 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 … 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.”

125. We also heard that the introduction of new rules part way through a recruitment cycle caused problems for universities as well as for students. 173

The University of Oxford noted the lead in time for marketing and publicising courses:

“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...

170 NUS.
171 Duane Harry.
172 Jehan Karim.
173 Engineering Professor’s Council; University of Manchester; University of Oxford.
stage and the course start date it can be especially frustrating and problematic for the applicant and higher education institution.\textsuperscript{174}
The University of Manchester called for “time for implementation [to be] built into any future plans for change.”\textsuperscript{175}

126. There are currently more changes planned in the Immigration Bill, currently before Parliament. The Immigration Bill impacts on international students in three principal ways: the introduction of a health surcharge for non-EEA temporary migrants; the removal of the right to appeal; and the introduction of a requirement for private landlords to check the immigration status of their prospective tenants.

127. A great deal of evidence expressed concerns about the impact of the Bill on international students. It was put to us that the Bill would exacerbate the perception that the UK does not welcome international students. The Government maintain that they “do not believe these measures will have any adverse impact on genuine international students studying STEM subjects at our universities.”\textsuperscript{176} As set out in the introduction, we do not intend in this report to provide a parallel forum for detailed scrutiny of the Bill. We note, however, that the provisions in the Bill herald yet more change.

128. \textbf{We recommend that the Government aim to achieve far greater policy stability in this area. We do not believe that the Government should rule out making any changes altogether, indeed, we invite the Government in this report to change several elements of current policy. A policy priority, however, must be the creation of a simpler, more stable and predictable policy environment. If further changes are to be made, we recommend that they are not introduced part way through an admissions cycle, and that both institutions and students are given adequate warning and time to absorb and implement policy changes.}

Perception and Communication

129. As set out in Chapter 2, a perception has grown that the UK is not welcoming to international students. As we argue elsewhere in this report, we do not think that the UK’s offer is as strong as it could be, and that it has deteriorated in recent years due principally to the closure of the post study work route. As such, we would question the wisdom that the notion of an unwelcoming UK is merely a matter of perception, or rather, misperception. Nevertheless, we believe that the UK’s offer is still a good one. Unfortunately, however, it seems as though a negative message has been allowed to develop. Ever tougher rhetoric on immigration has fed a suspicion that the UK is not welcoming and media outlets in foreign countries have filed lurid and misleading copy.

130. The Government told us about their efforts to address the problem of perception. The Minister for Security and Immigration, James Brokenshire MP, explained that:

\begin{itemize}
\item \textsuperscript{174} University of Oxford.
\item \textsuperscript{175} University of Manchester.
\item \textsuperscript{176} Government.
\end{itemize}
“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 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.”

131. The Minister for Universities and Science, Rt Hon David Willetts MP, noted efforts to address the situation in India, conceding that more needed to be done:

“I would just add that I have been to India twice with the Prime Minister … 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.”

132. Universities are clearly also working hard to recruit international students:

“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.”

133. We heard of a huge amount of determination from universities to rise to the challenge of international recruitment. Professor Allison, Vice-Chancellor and President, Loughborough University, told us: “whatever the nature of the challenge around recruiting overseas students, our approach is that we will sort it out.” At the same time, however, we heard that universities needed a conducive environment in which to operate: “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.”

134. We also heard that the British Council plays a pivotal role in getting across the message that the UK welcomes international students. We applaud their work and believe that this is an important vehicle for getting across key messages to prospective international students. The British Council is clearly the appropriate body to carry out this task and we fully support their efforts. We make no specific recommendation in his regard, except to say that if the messages we transmit in this report are heeded and the recommendations we make agreed, then a consequence will be that the British Council’s job is made easier. Indeed, the British Council’s evidence to this Committee points to this.

177 Q 83.
178 Q 83.
179 Q 28 (Mr Ian Bradley).
180 Q 37.
181 Q 35 (Professor Riordan).
182 British Council.
135. As Professor Finkelstein, Dean of the Faculty of Engineering Sciences, University College London, put it to us, however, the welcome for students begins “from the moment they google UK Visa”. The British Council told us:

“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.”

136. We recommend that the Government improve the way in which information is provided to prospective students via both Government websites and all sources of information over which they have control. The Government should take steps to ensure that the language used is clear and that a welcoming, consistent message is conveyed across the whole of Government.

Monitoring and Evaluation

137. We conclude this report by emphasising the importance of monitoring and evaluation in order to drive evidence based policy making. We accept that understanding the motivations of young people in India is difficult. But too often in this inquiry, we have been left with the impression that monitoring the impact of policies is not as rigorous or granular as it might be. In our previous report, we considered this issue and do so again briefly here.

138. The Government told us that they: “regularly review the impact of our policies through monitoring the available data and frequent meetings with key stakeholders and partners.” They referred to the Home Office’s quarterly publication of data on visa statistics and how the publication of Tier 4 visa statistics has been “improved to now give information on university sponsored applications.” In addition, HESA collects and publishes data on the Higher Education Sector, which includes “data about the number of non-EEA students at UK Higher Education Institutions (HEIs), by level of course, subject matter and by institution.” These data are used in Figures 1 to 4 of this report.

139. In addition, the Government told us that:

“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.”

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183 Q 65.
184 British Council.
185 Government; Office for National Statistics data.
186 Government.
187 Government.
140. In spite of these mechanisms, we were told that monitoring and evaluation could be improved. The British Council stated:

“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.”

188

141. The Engineering Professors’ Council said that while there was sufficient data at individual university level, sector level data—collected by HESA from the publicly funded HEIs—was not available quickly enough to enable sound policy making:

“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.”

189

142. Similarly, Imperial College London, noted that: “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.”

HESA has a statutory obligation to collect data from HEIs and provide it to Government Departments and Higher Education Funding Councils throughout the UK. The terms of the agreement between HESA and these bodies might be reviewed to enable the statistics on international STEM students to be published more quickly. In addition, HESA is sponsored by HEIs who could therefore be instrumental in eliciting more timely publication of the HESA statistics.

143. The UK Deans of Science told us that:

“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.”

188 British Council.
189 Engineering Professors’ Council.
190 Imperial College London.
191 UK Deans of Science.
144. We acknowledge that the sort of analysis recommended by the UK Deans of Science would not be without complexity. Nevertheless, given the importance of international students to the UK, and the Government’s wish for numbers of international students in higher education to grow by 15–20% over the next five years, it must be incumbent on the Government to improve dramatically their monitoring, evaluation and analysis of the effects of their immigration policies on international students. The current availability of data makes it virtually impossible to address problems as they arise.

145. In the context of the four month post study work period, we questioned the Government on the supporting evidence for choosing this period of time. This resulted in a somewhat cyclical dialogue. The Minister for Immigration and Security, James Brokenshire MP, queried whether there was hard evidence that four months was insufficient and he described the evidence we had taken as “assertion”. Equally, however, when he was invited to provide evidence that four months was sufficient, he told us: “I have certainly not seen firm evidence that it is either harmful or making a contribution.” We suspect that the evidence underpinning the Home Office’s policy-making is not as robust as it might be.

146. Data are available on total immigration, numbers of CAS sponsored visa applications and numbers of international entrants at publicly funded Higher Education Institutions. The Government has also indicated that improvements will be made to ONS methodology so that it will be possible to determine how many students leave the UK following their studies. It is not, however, apparent that the available data are collated and analysed in a meaningful way, which would allow the impact of immigration policies, or other influencing factors, to be determined. The Government may also need to make increased efforts to collate and analyse the data available on the immigration of international STEM students to other, competitor countries.

147. In conclusion, unfortunately, it seems as though the step change we sought in our previous report in the area of data and analysis has not been achieved. Too often, concerns about the impacts of immigration policy are described as being merely anecdotal or speculative—lacking hard evidence. The Government should help to remedy this by vastly improving monitoring and evaluation practices. The Government insist that immigration reforms are not affecting international students, but we are sceptical as to the basis for their certainty, both because of the evidence we took, and because of the absence of granular or causal data collected by the Government.

148. We recommend that the Government, in partnership with Higher Education Institutions and the Higher Education Funding Councils, improve markedly their monitoring and evaluation of the effects of their immigration policies on international students. Data should be made available far more quickly, thus enabling the Government to make timely policy responses as appropriate. Furthermore, it is essential that the Government put in place an ongoing monitoring and evaluation mechanism to determine the impact of their policies.

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192 Q 90.

193 Q 91.

and underpin future decision making. Monitoring and evaluation processes should be embedded in the policy making process and findings should be routinely published in the biennial review we recommend.
CHAPTER 4: SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Interpreting the data: Influencing factors

149. We therefore recommend that every two years the Government review comprehensively the experience offered to international students by the immigration process and assess how the rules—specifically in terms of entry and the ability of students to stay and work in the UK after completion of their studies—compare with the UK’s competitors. The Government should publish a report to Parliament setting out in full their evidence base, analysis and findings of the review. (paragraph 39)

Government policy objectives

150. We recommend that the Government distinguish in the immigration statistics and the net migration target between students—holding Tier 4 visas—and other immigrants. In addition, the Government should treat student numbers separately for immigration policy making purposes. (paragraph 53)

Tier 4 student visa requirements

151. We recommend that the Home Office, together with BIS, take immediate steps to streamline the Tier 4 visa process, remove unnecessary obstacles and improve the experience for international students from the point of application to departure. (paragraph 69)

152. In particular, we recommend that the Government: bring the costs of applying for a Tier 4 visa in line with the UK’s competitor countries; improve the training and guidance given to staff conducting credibility interviews; ensure that international students who need to interrupt their studies for personal or medical reasons are able to resume their studies afterwards; and ensure that their own rules for academic progression within the visa process do not inhibit legitimate transfers between courses for the purposes of gaining new skills. (paragraph 70)

153. We also recommend that universities adopt a proportionate approach to the management of the risks to their Trusted Sponsor status (paragraph 71)

Academic Technology Approval Scheme (ATAS)

154. We recommend that the Government immediately improve the design and operation of the Academic Technology Approval Scheme so that it is fit for purpose. We recommend that the scheme is better resourced, particularly for the period in the year when it is most in demand, streamlined and explained much more clearly to both universities and applicants. (paragraph 77)

Post Study Work Route (PSW)

155. In conclusion, it is clear to us that the closure of the previous post study work route has had a deleterious effect on international students. Four months is too short a post study work period and it is at least questionable whether £20,300 is an appropriate figure across all STEM disciplines. It is also
unclear how this figure was arrived at. The previous post study work route was simple and competitive; current arrangements are far less so. (paragraph 109)

156. We therefore recommend that the Government immediately reinstate the previous post study work route as it was simple, competitive and effectively enabled qualified STEM students access to the UK jobs market. If the Government do not agree with this recommendation they should explain why this is the case to Parliament and, within current arrangements, at least review the appropriateness of the £20,300 starting salary figure across all STEM disciplines and the length of time afforded to STEM graduates to seek work in the UK. The review should be completed by autumn 2014 and a report to Parliament published. (paragraph 110)

Taught Masters

157. We recommend that BIS immediately establishes a working group to review the impact of actual, and potential, reductions in the numbers of international students on the provision, sustainability and quality of taught Masters courses in STEM subjects in the UK. BIS should ensure that UK and international students continue to have access to taught Masters courses in order to meet the needs of the industrial strategy, health strategy and wider national interests. This working group should include representation from HEFCE, industry and the Higher Education sector. The group should report by autumn 2014 and publish its findings openly. (paragraph 120)

Policy Stability

158. We recommend that the Government aim to achieve far greater policy stability in this area. We do not believe that the Government should rule out making any changes altogether, indeed, we invite the Government in this report to change several elements of current policy. A policy priority, however, must be the creation of a simpler, more stable and predictable policy environment. If further changes are to be made, we recommend that they are not introduced part way through an admissions cycle, and that both institutions and students are given adequate warning and time to absorb and implement policy changes. (paragraph 128)

Perception and communication

159. We recommend that the Government improve the way in which information is provided to prospective students via both Government websites and all sources of information over which they have control. The Government should take steps to ensure that the language used is clear and that a welcoming, consistent message is conveyed across the whole of Government. (paragraph 136)

Monitoring and evaluation

160. We recommend that the Government, in partnership with Higher Education Institutions and the Higher Education Funding Councils, improve markedly their monitoring and evaluation of the effects of their immigration policies on international students. Data should be made available far more quickly, thus enabling the Government to make timely policy responses as appropriate. Furthermore, it is essential that the Government put in place an ongoing
monitoring and evaluation mechanism to determine the impact of their policies and underpin future decision making. Monitoring and evaluation processes should be embedded in the policy making process and findings should be routinely published in the biennial review we recommend. (paragraph 148)
APPENDIX 1: LIST OF MEMBERS AND DECLARATIONS OF INTEREST

Members:

Lord Dixon-Smith  
Baroness Hilton of Eggardon  
Lord Krebs (Chairman)  
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  
Lord Willis of Knaresborough  
Lord Winston

Declared Interests

Lord Dixon-Smith  
None  
Baroness Hilton of Eggardon  
None  
Lord Krebs  
Principal, Jesus College, Oxford  
Trustee, Nuffield Foundation  
Chairman, Oxford Risk Ltd  
Fellow, Royal Society  
Fellow, Academy of Medical Sciences  
Baroness Manningham-Buller  
Chair of Council and Court, Imperial College London  
Governor, Wellcome Trust  
Hon. Fellow, Lady Margaret Hall, Oxford  
Hon. Fellow, Cardiff University  
Hon. Fellow, City and Guilds  
Lord O’Neill of Clackmannan  
None  
Lord Patel  
Chancellor, University of Dundee  
Fellow, Academy of Medical Sciences  
Fellow, Royal Society of Edinburgh  
Baroness Perry of Southwark  
Chairman of Council, Kaplan College  
Hon. Fellow, Girton College, University of Cambridge  
Hon. Fellow, Lucy Cavendish College, University of Cambridge  
Lord Peston  
None
Lord Rees of Ludlow
*Fellow, Trinity College Cambridge*
*Fellow, Royal Society*
*Hon. Fellow, British Academy*
*Hon. Fellow, Academy Medical Sciences*
*Hon. Fellow, Royal Academy of Engineering*

Earl of Selborne
*Former Chancellor, University of Southampton*
*Chairman, Foundation for Science and Technology*

Baroness Sharp of Guildford
*Former Fellow of Policy Research Unit, University of Sussex*
*Hon. Fellow Birkbeck College, University of London*

Lord Wade of Chorlton
*None*

Lord Willis of Knaresborough
*Council Member, Natural Environment Research Council (NERC)*
*Chair, Association of Medical Research Charities*

Lord Winston
*Professor of Science and Society, Imperial College London*
*Fellow, Academy Medical Sciences*
*Hon. Fellow, Royal Academy of Engineering*
*Member, Vision Committee*
*Member, Royal Society Committee of Inquiry into STEM education*

A full list of Members’ interests can be found in the Register of Lords Interests:


Professor Sir William Wakeham, Specialist Adviser
*Non-executive Director, Ilika plc*
*Chairman, Exeter Science Park Company*
*Scientific Advisory Board of American Process Incorporated*
*Emeritus Professor, University of Southampton*
*Visiting Professor, Imperial College London*
*Visiting Professor, Exeter University*
*Visiting Professor, Instituto Superior Técnico, Lisboa, Portugal*
*Council Member, Universidade Nova de Lisboa, Portugal*
*Chair, South East England Physics Network*
*International Secretary, Senior Vice-President, Royal Academy of Engineering*
*Past-President and Fellow, Institution of Chemical Engineers*
*Fellow, Institute of Physics*
*Fellow, Institution of Engineering and Technology*
*Trustee, Royal Anniversary Trust*
*Trustee, Rank Prizes*
APPENDIX 2: LIST OF WITNESSES

Evidence is published online at [www.parliament.uk/hlscience](http://www.parliament.uk/hlscience) and available for inspection at the Parliamentary Archives (020 7219 5314).

Evidence received by the Committee is listed below in chronological order of oral evidence session and in alphabetical order. Those witnesses marked with * gave both oral evidence and written evidence. Those marked with ** gave oral evidence and did not submit any written evidence. All other witnesses submitted written evidence only.

**Oral evidence in chronological order**

| * | QQ 1–15 | Department for Business, Innovation and Skills (BIS) |
| * | QQ 16–31 | National Union of Students (NUS) |
| * |  | Ian Bradley, The University of Manchester |
| ** |  | Philip Lockett, London South Bank University |
| * | QQ 32–41 | Professor Robert Allison, Loughborough University |
| ** |  | Professor Gina Rippon, Aston University |
| * |  | Professor Colin Riordan, Universities UK International Policy Network |
| ** | QQ 42–52 | Sir Andrew Witty, University of Nottingham |
| * |  | Professor Steve West, Universities UK Health Policy Network |
| * |  | Professor Erol Gelenbe, UK Computing Research Committee (UKCRC) |
| * | QQ 53–63 | Engineering Employers’ Federation (EEF) The manufacturers’ organisation |
| ** |  | Professor Sir Peter Gregson, Cranfield University |
| ** |  | Professor Helen Atkinson CBE, FREng, University of Leicester |
| ** | QQ 64–81 | Professor Mick Fuller, Plymouth University |
| ** |  | Professor Anthony Finkelstein, University College London (UCL) |
| ** |  | Professor Scott MacGregor, University of Strathclyde |
| * | QQ 82–94 | Rt Hon David Willetts MP, Minister of State for Universities and Science, Department for Business, Innovation and Skills (BIS) |
| * |  | James Brokenshire MP, Minister of State for Immigration and Security, Home Office |

**Alphabetical list of all witnesses**

| * | Professor Robert Allison, Loughborough University (QQ 32–41) |
Professor Helen Atkinson CBE, FREng, University of Leicester (QQ 53–63)

Ian Bradley, The University of Manchester (QQ 16–31)

British Council

British Medical Association (BMA)

James Brokenshire MP, Minister of State for Immigration and Security, Home Office (QQ 82–94)

Brunel University

Campaign for Science and Engineering (CaSE)

Cancer Research UK

Confederation of British Industry (CBI)

Council of Professors and Heads of Computing in the UK (CPHC)

Coventry University

Department for Business, Innovation and Skills (BIS) (QQ 1–15)

Engineering Employers’ Federation (EEF) The manufacturers’ organisation (QQ 53–63)

Engineering Professors’ Council (EPC)

Faculty of Engineering and Physical Sciences, the University of Manchester

Professor Anthony Finkelstein, University College London (UCL) (QQ 64–81)

Professor Mick Fuller, Plymouth University (QQ 64–81)

Professor Erol Gelenbe, UK Computing Research Committee (QQ 42–52)

Professor Sir Peter Gregson, Cranfield University (QQ 53–63)

Duane Harry

Higher Education Funding Council for England (HEFCE)

Home Office

Imperial College London

Imperial College Union

Institution of Chemical Engineers (IChemE)

Philip Lockett, London South Bank University (QQ 16–31)

Jehan Karim

Professor Scott MacGregor, University of Strathclyde (QQ 64–81)

Migration Watch UK

Million+

National Union of Students (NUS) (QQ 16–31)

Newcastle University
Pharmacy Schools Council (PhSC)
Recruitment and Employment Confederation (REC)
Research Councils UK (RCUK)

* Professor Colin Riordan, Universities UK International Policy Network (QQ 32–41)

** Professor Gina Rippon, Aston University (QQ 32–41)
Royal Academy of Engineering (RAEng)
Royal Society of Chemistry (RSC)
Russell Group
Science Council
Society of Biology
Dr Ripduman Sohan, University of Cambridge

* UK Computing Research Committee (UKCRC)
UK Council for International Student Affairs (UKCISA)
UK Deans of Science

* Universities UK
University of Birmingham
University of Leicester
University of Oxford
University of Sheffield
University of Sheffield Students Union
University of Warwick

Roxanne Walters

* Professor Steve West, Universities UK Health Policy Network (QQ 42–52)

* Rt Hon David Willetts MP, Minister of State for Universities and Science, Department for Business, Innovation and Skills (BIS) (QQ 82–94)

** Sir Andrew Witty, University of Nottingham (QQ 42–52)
APPENDIX 3: CALL FOR EVIDENCE

16 January 2014

The House of Lords Science and Technology Select Committee, under the Chairmanship of Lord Krebs, is conducting a short inquiry into the effect on international science, technology, engineering and mathematics (STEM) students of immigration policy. The Committee invites interested individuals and organisations to submit written evidence as part of the inquiry.

Scope

The inquiry follows the report\(^\text{195}\) of the Committee on higher education in STEM subjects in July 2012 (2nd Report of Session 2012–13) and the Government response\(^\text{196}\) published in November 2012. This short inquiry will, however, focus very specifically on immigration policy and international students (paragraphs 215–39 of the Committee’s July 2012 report). While the Committee’s focus is on international STEM students, in order to provide a sense of context and comparison, the Committee would welcome brief comparative comment from respondents about their experience of the issues in other disciplines. The deadline for written evidence submissions is \textbf{Thursday, 20 February 2014}.

Questions:

The Committee invites written submissions on the following questions. Please only answer the questions of relevance to you. Please also do draw the Committee’s attention to any relevant issues not captured in the specific questions below:

- 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?
- Which UK immigration policies are affecting international STEM students and what issues are they causing?
- What impact might the provisions in the Immigration Bill currently before Parliament have on international STEM students?
- 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?


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

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

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

• 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?
APPENDIX 4: ENTRANTS DOMICILED FROM INDIA AND CHINA

FIGURE 7
Total Entrants Domiciled from India and China by STEM subjects.
Top panel: India. Bottom panel: China

Number of students


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

Source: Higher Education Statistics Agency—data provided by BIS.
## APPENDIX 5: ABBREVIATIONS AND ACRONYMS

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<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>AEI</td>
<td>Australian Education International</td>
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<td>ATAS</td>
<td>Academic Technology Approval Scheme</td>
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<td>BIS</td>
<td>Department for Business, Innovation and Skills</td>
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<td>CAS</td>
<td>Confirmation of Acceptance for Studies</td>
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<td>DAAD</td>
<td>German Academic Exchange Service</td>
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<td>EEA</td>
<td>European Economic Area</td>
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<td>EEF</td>
<td>The Manufacturers’ Organisation</td>
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<td>EU</td>
<td>European Union</td>
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<td>FCO</td>
<td>Foreign and Commonwealth Office</td>
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<td>GlaxoSmithKline</td>
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<td>Human Resources</td>
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<td>IIE</td>
<td>Institute of International Education</td>
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<td>JACS</td>
<td>Joint Academic Coding System</td>
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<td>NQF</td>
<td>National Qualifications Framework</td>
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<td>NUS</td>
<td>National Union of Students</td>
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<tr>
<td>ONS</td>
<td>Office of National Statistics</td>
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<tr>
<td>PGR</td>
<td>Postgraduate Research</td>
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<td>PGT</td>
<td>Postgraduate Taught</td>
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<td>PSW</td>
<td>Post Study Work</td>
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<td>RIBA</td>
<td>Royal Institute of British Architects</td>
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<td>SMEs</td>
<td>Small and Medium Enterprises</td>
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<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
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<tr>
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<td>Undergraduate</td>
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<td>UK Visas and Immigration</td>
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<td>UN</td>
<td>United Nations</td>
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APPENDIX 6: RECENT REPORTS FROM THE HOUSE OF LORDS
SCIENCE AND TECHNOLOGY COMMITTEE

Session 2008–09
1st Report  Systematics and Taxonomy Follow-up: Government Response
2nd Report  Genomic Medicine
3rd Report  Pandemic Influenza: Follow-up

Session 2009–10
1st Report  Nanotechnologies and Food
2nd Report  Radioactive Waste Management: a further update
3rd Report  Setting priorities for publicly funded research

Session 2010–12
1st Report  Public procurement as a tool to stimulate innovation
2nd Report  Behaviour Change
3rd Report  Nuclear Research and Development Capabilities
4th Report  The role and functions of departmental Chief Scientific Advisers
5th Report  Science and Heritage: a follow-up

Session 2012–13
1st Report  Sports and exercise science and medicine: building on the Olympic legacy to improve the nation’s health
2nd Report  Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects
3rd Report  The implementation of open access

Session 2013–14
1st Report  Regenerative Medicine
2nd Report  Scientific Infrastructure
3rd Report  Waste or resource? Stimulating a bioeconomy