



HOUSE OF LORDS

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Inquiry on

INTERNATIONAL STEM STUDENTS

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Witnesses: Sir Andrew Witty, Professor Steve West and Professor Erol Gelenbe

USE OF THE TRANSCRIPT

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Members present

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

Examination of Witnesses

Sir Andrew Witty, Chancellor, University of Nottingham, **Professor Steve West**, Vice-Chancellor, University of West England; Chair of Universities UK's Health Policy Network, and **Professor Erol Gelenbe**, Department of Electrical and Electronic Engineering, Imperial College London, and member of the UK Computing Research Committee

Q42 The Chairman: I would like to welcome our three witnesses to this first evidence session this morning in our inquiry into STEM students and the Immigration Rules. In a moment, I would like to invite the three panellists, starting with Sir Andrew, to introduce themselves for the record. If you want to make a brief opening statement, please feel free to do so. Then we will move into the questions that we wish to discuss with you. Perhaps I will start with Sir Andrew.

Sir Andrew Witty: Thank you and good morning. I am Andrew Witty. I am the Chief Executive of GlaxoSmithKline. I am also the Chancellor of the University of Nottingham. I will not make any further comment at this point.

Professor West: I am Steve West. I am representing Universities UK. I sit on its board and I chair the health and research committee. I am also Vice-Chancellor at the University of the West of England in Bristol.¹

Professor Gelenbe: I am Erol Gelenbe. I am a Professor at Imperial College in the Department of Electrical and Electronic Engineering. I am head of the Intelligent Systems and Networks Group, and I am here to represent UKCRC, which is a committee of senior academics in the fields of computing, electronics, electrical engineering and information technology.

The Chairman: Thank you very much. As you know, we are trying this morning to understand, first of all, the basic facts of what has changed in student numbers, if anything has changed, since the Immigration Rules were introduced, and later to understand to what extent any numerical changes can be attributed to changes in the Immigration Rules. We are also particularly interested, towards the end of this session, in the post-study work and the way that has changed.

Perhaps I could kick off by asking each of you in turn, with regard to your own institutions and any broader experience, what has happened in the changes in numbers of STEM students coming to this country from outside the European Union, and whether particular countries have been affected, whether particular subjects have been affected and what impact that has had on your institution. Perhaps, Sir Andrew, you would like to kick off.

Sir Andrew Witty: Specifically from the University of Nottingham's experience, the only real trend of any note is a decline in the number of students coming from India. There is really very little trend beyond that that I think would be sensible to highlight or put any store by. Looking at the national data, you see again the India trend but, interestingly enough, you also see a trend in computer sciences, so overall the numbers are fractionally down over the last couple of years. It seems to be both in computer sciences from a discipline perspective,

¹ I am also Chair of the University Alliance Mission Group

and from India as a source of citizenship. Beyond that, it is quite hard to see any very significant shifts at all.

Professor West: I have exactly the same picture, Chair. The Indian/Pakistan market is the market that seems to have been severely impacted since 2010. We have seen, interestingly, increases in other market sectors—Vietnam, China and Nigeria—so there is a changing pattern emerging. It is just as well there is, because that is compensating for the significant decline in other markets. We are also seeing increases in creative industry sectors in the UK, so international students beginning, from those emerging countries, to go beyond the traditional subject areas that you would see within STEM.

Professor Gelenbe: I would just like to add something to that. We also see this change in composition of the students, with perhaps a greater emphasis on students whose command of the English language is not as good as it used to be. This has an impact on the whole teaching process. We are losing students who understand and use English well and we are gaining students who need a lot of remedial support in this area. With a class, that moves us very much towards, if you wish, a monoculture. This has some negative effects on the whole teaching and educational process, and on the research. Definitely, in addition to the non-EU or overseas students, we see a reduction in Europeans as well, which goes generally in the same direction.

Q43 The Chairman: I wondered whether any of you would like to comment on what the impact of these changes. You have all highlighted that the decrease in students from the Indian subcontinent coming to the UK since 2010, which is what the BIS statistics drawn from the HESA data also demonstrate to us, is on courses that you run, particularly postgraduate taught master's courses, which may be quite dependent on certain

populations of students, say in computer science. I wonder whether you have any comment on that, Sir Andrew.

Sir Andrew Witty: Not particularly. There is obviously a change in the composition, because we have seen fewer students come from India, but that has been compensated for by continued strong demand from elsewhere. The ability to continue to populate the courses remains good. I think it is worth potentially reflecting on whether there is a direct link between the drop-off in Indian demand and the computer science piece. I am not sure I can add anything more to that, but two interesting points jump out of the statistics. Whether they are really linked or not is not clear to me.

The Chairman: Just before moving on to Professor West and Professor Gelenbe, I wanted to ask Sir Andrew a question with regard to Nottingham. I know you have campuses in the Far East, and I wondered whether there had been any detectable shift to students from the Indian subcontinent going to your campuses in the Far East as opposed to coming to the UK.

Sir Andrew Witty: We have a campus in China and one in Malaysia. Interestingly enough, over the last couple of years the Malaysian Government have made it incrementally more difficult for overseas students to attend that campus. Actually, while you will hear some people say that some countries are making it more attractive, not everybody is; Malaysia is going in the other direction. There is certainly a population of students who you will see in Malaysia who come from not just India, but Africa and elsewhere. I suspect the bigger driver, frankly, is the differential fee levels, where it is a less expensive venture for them, not necessarily just in tuition fees but in living costs and the like. I think it is probably more multifactorial than a simpler shift share from UK to Malaysia, and I would not say there was a significant trend in any case.

The Chairman: Coming back to the question about viability of courses and the contribution of student from the Indian subcontinent, Professor West.

Professor West: It is a very similar picture again. Postgraduate is a market that is actually quite difficult at the moment, particularly for parts of the UK higher education sector, so universities that might be outside the Russell Group are finding postgraduate areas quite difficult to recruit to. There are probably two reasons for that. One is that clearly home students are beginning to feel the impact of the introduction of fees, and I fully expect, when the £9,000 fee students start to exit, that we will see a further decline in students picking up postgraduate, as companies are not sponsoring them and they cannot get access to loans. That is the first thing. International students are important in allowing a viable number of participants on our postgraduate programmes.

We are seeing many more institutions operating with very low numbers on postgraduate areas, just to keep them moving, so student numbers around 10 or eight are not unusual in some institutions but are clearly not viable in the longer term; they need to be around 15, 20 or 25 in order to have a viable community of scholars, let alone the financial considerations. What we are seeing again in the postgraduate market is the demise of India and Pakistan, in particular in science and engineering, where they were fairly buoyant, and a move more towards Malaysia, Singapore, Hong Kong and China.

Picking up a point, Chair, if I may, on the Malaysia and Singapore market, increasingly students are looking to study in country in a host institution, and then spend less time actually completing in the UK. It is not unusual to have a pattern of two years in country and one or two years in the UK. That again keeps their cost down, so even universities that do not have international campuses often have international partnerships, and that is how they are moving student numbers around. Importantly for UK students, the beauty of that, if we

can get UK students to think more globally, is that there are opportunities for them to study internationally as well, so there is a reciprocal set of arrangements.

Q44 The Chairman: If I could just pick up on one particular subject area, we have referred already to computer science and the possibility, as Sir Andrew mentioned, that that might also be conflated with the Indian subcontinent. Another area in which the HESA statistics show quite a substantial decline is in subjects allied to medicine. I wondered, Professor West, whether that has been noticeable in the University of the West of England.

Professor West: I need to explain how subjects allied to medicine are funded, so that people can understand the slight difference. Most of the subjects allied to medicine—nursing, midwifery, physiotherapy, occupational therapy and the like—are funded through the NHS via the Department of Health. They are not funded through the current HEFCE and student loan companies, so these student numbers are capped and controlled very closely. International students are permitted to come on to those programmes but are normally controlled because of the impact on the NHS and placements.

We are seeing a reduction in the number of international students, particularly international students wishing to study nursing. That is where the biggest impact has been. There are two reasons for that. The first is the limitations on the number of international students that can be taken anyway, which is beginning to feed back into the consciousness of international communities. Secondly, some of the press that has been quite negative about the NHS is also beginning to have an impact on attracting international students, so there are multiple dynamics playing out within the allied health professions.

Q45 The Chairman: We were told last week by Professor Georgina Rippon from Aston University that at Aston courses allied to medicine, such as pharmacy and optometry, had

been particularly severely hit by falling international student numbers. Is that a unique Aston situation?

Professor West: That is true. Pharmacy and optometry fall outside the NHS funding elements, so they are part of the Student Loans Company and the Further Education Funding Council. Pharmacy, however, is really interesting. There are debates ongoing to control pharmacy in the same way in which student numbers for medicine and dentistry are controlled. This is because we are overproducing pharmacists, and there are pressures coming in. International students are a significant proportion of the students studying pharmacy, so there will be a further impact, I suggest, because the Department of Health yesterday was considering how to control home student numbers and international students accessing pharmacy programmes. This relates to the registration year in particular.

The Chairman: You would expect the effects that were reported from Aston University to be more widespread.

Professor West: Yes.

The Chairman: Professor Gelenbe, I wondered whether you had a comment particularly on computer sciences, which has been brought up.

Professor Gelenbe: With respect to the taught postgraduate courses, one sees that the short four-month post-study work period is having an adverse effect in that students become much more career-conscious during their studies when they should actually be concentrating on their courses and then on their projects. They already start scurrying off to interviews, getting part-time jobs and so on. That is probably a negative effect on their studies.

As far as the numbers are concerned, of course the top programmes will always be protected. There will always be enough candidates, so that is not an issue, and then others

will suffer, which may be an issue. With respect to the qualitative aspects, this net segregation between the education process and the practical experience, shall we say, should be a bit clearer, and there should be a longer period of practical experience, because they go off and start talking to banks and so on, in London of course, and spend a lot of time doing that. The work they produce in the classroom is not of the same quality.

Q46 Baroness Perry of Southwark: My question takes us on to the question of the tightening of the Immigration Rules. It has two parts, really. How much do you think, or how much is your experience, that the Immigration Rules are detracting from this country's ability to attract overseas students in STEM subjects? The second half of the question is: how much are the changes also reducing our ability to retain the brightest and best after they have been through their studies?

Sir Andrew Witty: I do not think there is a very obvious deleterious effect, but slightly more subtle effects may be at play here. The changes themselves have allowed, to put it bluntly, a media rhetoric to be built up and exploited, which in large part does not necessarily reflect the substance of the changes. Somehow the rhetoric in some countries—India is a very good example of it—has potentially been allowed to be overstated as a negative and a differential point, which to some degree may or may not have been exploited by competitor countries. Who knows? That certainly happens.

In addition to the notion of new regulation, there have been very frequent changes—multiple changes—of regulation over the last two or three years. That does not make it easier for people from outside the country to understand how to engage with the country. Change is sometimes almost as bad as the substance in the sense of how frequent it is, giving an impression of an ever-moving target. That is the second part that is worth bearing in mind, at least.

In terms of the extent of retention—this plays back a little to the attractiveness of the country—the speed with which a graduated student has to find a job if they want to stay here is a problem. It makes us marginally less attractive to some other countries that have slightly longer periods and frankly simpler windows for them to deal with. The fact that it forces, as you have just heard, people to start to overfocus on finding their job before they have really finished their studies is probably not ultimately ideal, not at the margin at least. It is not great for employers, because it makes it very difficult for us to plan ahead too much who we want to take. Everything ends up being a little frozen, and then suddenly it thaws and everything has to be done in a very short time. If you have institutions that graduate, let us say, two or three months after somebody has finished their finals, by the time they physically have their degree they have vanishingly small amounts of time to successfully secure the role. The danger is that they assume failure. The danger is not that people go all the way through that process, somehow it will not work and they must go home, which is very disappointing; it is actually that they just assume they will never be successful. They assume that that very short period of time will not be enough, so they do not try.

Baroness Perry of Southwark: Would a longer period of time help, or are there other devices, such as earlier recruitment programmes from companies like your own, in universities with strong science departments?

Sir Andrew Witty: From a personal perspective and from a GSK perspective, we would always favour a simple solution to the identified problem, rather than complex ways to chip away at the problem. We would recommend giving people a year's grace from when they graduate to be able to secure the role. We do not think it should be for ever, but we also think that where we are at today is too short and that there are efforts to try to diminish that, but in a way we are creating even more complexities. The idea of the entrepreneurial

exemption with a thousand extra places seems to be more and more complexity to address what I think is a pretty simple problem: just giving people the breathing space and the confidence to let them finish their course successfully, and then engage with the jobs market, with the piece of paper in hand, to be able to secure the right role. I do not think it should be too long, but it feels to me that four months is too short. A year feels sensible.

From a very personal perspective, my son is at a university in America. The visas that they are granted are very straightforward: they are given a five-year visa for a four-year course. Interestingly enough, they are given a choice: they can either use up the additional one year at the end of graduation, in the way that I am describing; or if they chose to work in America during their summer vacation, they use up that year. That is available to them essentially for work experience in the host country of the education, and is very attractive for people who go to school in the US.

Baroness Perry of Southwark: It is blindingly sensible.

Sir Andrew Witty: It is very straightforward and you do not have to ask for it. It is just part of the process.

Professor West: Perception is really important to understand that the UK is playing within a global marketplace. We are all trying to recruit the very best we can from an international pool, so perception and what students, or their advisers and parents, are reading in the press at any particular moment, has a huge influence on how they feel about the country that they may be studying in. If we think about what happened post-2010, there were many negative stories in the press about how the UK was supporting international students. London Met was in the news. That went round Pakistan and India within about 24 hours, and the number of negative stories was significant: in the thousands. We should also not

forget that social media now means there is an immediacy to the story, which goes across continents and around the world very rapidly, so perception is very important.

The reality of course is that when students then make their choices and look at the regulatory frameworks within which they have to apply, they are looking for simple, clean obvious routes in. The more complicated and the more confusing the application process is, and the more hurdles students have to jump through, the more likely they are to look at other continents and other countries that seem to be more welcoming in the way in which students have to complete information.

The change element that Sir Andrew mentioned is very important, because many of these students will be using support frameworks in country—agents and university offices—to help them navigate their way through. If the rules keep changing, they may be being misadvised as they put their applications in. Again, if we can keep things simple, clean and clear, we are more likely to attract and retain the very best.

I absolutely agree with Sir Andrew about the timeframe for students to gain access. One of the reasons why international students look to the UK, apart from the quality of higher education that is here, which is recognised globally as excellent, there is the opportunity to enhance their CVs through post-graduation employment. Certainly for the Indian students and many other students who are accessing loans from the bank, it is on the back of their ability to work post-graduation. That is how they pay back their loans. Some of our rules are more restrictive than other continents' on how they access employment, and some of the frameworks for how much they have to earn are unrealistic. In the current fiscal environment that we are in, many of our graduates are initially going into technician-level jobs. These are graduate jobs in that sense, but the economic climate means that they are unlikely to be earning £24,000 when they leave university; they are more likely to be going

into jobs that are around £18,000 or £19,000 or less². That applies equally to home and international students, so we have some confusing consequences being played out within our regulatory frameworks.

Baroness Perry of Southwark: You mentioned the brightest students. Is it having an impact on the quality of students? Are people who are able to play the field, the brightest students who could choose their country, the ones we are losing, or are we retaining them?

Professor West: It is a very difficult question to answer, but I have no doubt that the very brightest students are the same as the very brightest students in the UK, and they do their homework. I would not be surprised if, when an international student is considering studying in the UK, America or Australia, they are making a judgment about how they are going to receive high quality education and opportunities for employment on their CV. Their third consideration may or may not be what support through bursaries, scholarships and internships is available. That message consistently comes through the British Council and university fairs, regardless of the continent that they are trying to recruit students from; employability is absolutely key.

Professor Gelenbe: With respect to the post-study work period, it is absolutely clear that four months is inadequate, certainly at the postgraduate level. At the PhD level, we have one year currently. That should go up to two years, because that is a good period of time to write your papers coming out of your PhD, do some postdoctoral work and you start to become useful to their laboratory and other laboratories. These periods are really too short. The other thing we have to be aware of is that our competitors are of course Australia and the US, but they are also various European countries. For instance, in recent years, France has become less attractive to taxpayers, but much more attractive to foreign nationals who

² some home students take-up unpaid internships for up to 12 months

want to do research there, because of the friendlier atmosphere created by the current Government. Similarly, thinking about computer science specifically, the German automobile industry is going through a tremendous transformation with respect to smart vehicles, and there are huge recruitments of people who specialise in telecommunications, computer science and software. These changes are happening just next door to us, and a lot of our students are attracted to go there.

On the other hand, we have some positive effects. The dismal situation in Italy is making us more attractive with respect to PhD students from Italy and postdoctoral fellows. On the other hand, generally the situation is getting better abroad. We just have to be much more attractive and we really must project our image as a meritocracy, rather than as a bureaucracy. We must say that the UK is an intelligent country; we optimise our resources, and we optimise our society to work in the best possible way. We put in positive-perspective contributions, rather than, "This is the rule. That is the rule. You cannot do this. You cannot do that". That is what I would like to say.

Q47 Lord Rees of Ludlow: This is a question about the perceptions that may be exaggerating the reality. Are these negative perceptions about the actual rules themselves or perhaps the somewhat insensitive way in which they are being implemented at an operational level, by you having to queue up a long time to register with the police, to get visas, et cetera? Is it a matter of the actual regulations or the operation of them?

Sir Andrew Witty: It is impossible to really answer the question accurately, but my sense it is largely the latter rather than the former. We are obviously talking about a deeply emotive subject here, but also in the source countries of talent with great history associated with any commentary in either direction. It does not take very much of a spark to create a very significant reaction. Whether that is in the regulation or the implementation of a regulation,

or just the notion of change allowing an interpretation of intent is very hard to distinguish. For me, the perception is now much bigger than anything that you can objectively tune in to in the reality, which perhaps raises the question of how we reverse the perception, if that is what we want to do.

Professor West: I think it is both. Maybe our rules look more complex than other continents', so we appear less welcoming, and that gets reinforced by social media, word of mouth, and friends who have come to this country, queued and had a bad experience. The difficulty is that one bad experience is the experience that everybody shares. That is the one that is out there in social media; it is the one that the press gets hold of against probably a hundred fantastic sets of experience. The balance is the difficulty. Our actions are the reality for students, so it is not what we say—"We're open for business. We're a welcoming country"—it is how they experience that.

Professor Gelenbe: We have our own MSc students who go home and then wait for the ATAS process to conclude and receive their visa. They are in limbo for several months. During that time, if they receive an offer from a reputable American university, what do you think they do? They go to the reputable American university where that process is much more direct. Once the university has sent out the letter, it means that they also have their admission visa, so we have to look at ourselves in the competitive framework. The ATAS process in particular—I say "the process"; I am not looking at the general principles—is not very effective. It creates this fear of limbo, of wait, of expectation, of not knowing what is happening, which is quite destabilising to young people.

Lord Peston: You lost me at one point. At one point, you were arguing about the perspective of the student, but my experience as an academic was also the reverse. Lots of my ex-students get in touch with me to say, "We are looking for an economist who can do

this sort of work. Do you have anybody any good this year?”. To go to GlaxoSmithKline as an example, human capital must be vital to your business. Do you have someone working for you who regards it as their role to reach out to the universities and say, “Who have you got for us this year?”. That person may be foreign, but presumably you are not biased in that regard. Could you enlarge a bit on the perspective the other way around? After all, you are all connected with universities. Why are you not reaching out and saying, “We want your best people no matter what”, or is the answer that you are?

Sir Andrew Witty: Do you mean from an employer perspective?

Lord Peston: Yes.

Sir Andrew Witty: Absolutely. We have deep relationships with a portfolio of universities, both here and internationally. We have a clear view about what we are looking for in the UK to try to diminish or encourage the transference of talent. We remain the only company in Britain that will pay 100% of student fees from any student who graduates from a British university and joins us from university, so we have tried to eliminate any of the financial anxieties that anybody might have. If somebody wants to read chemical manufacturing because they dream of manufacturing medicines, they should not be put off by money if they think they are good enough to come and work for GSK at the end. We work very hard on that.

Actually, I was just looking at the data for the UK. Over the last three years, the number of applicants we have had for engineering appointments within our manufacturing division has almost doubled, but the number who are foreign students in British universities has gone up fivefold. In terms of the share of applicants that we receive, everything has gone up, but the proportion who are overseas students studying here has gone up very dramatically.

We are interested in two things. One is the absolute best talent; we do not care where it comes from. You only have to look at our intra-company transfers to show that, once they are in the company, they get moved all over the world. The second is we see the UK strategically as a fantastic place to identify the best international students, not to work here for very long but to work here for a couple of years to understand how the culture of the company works, and then to go back to lead their businesses or be leaders in their businesses, back in the countries they came from or their region. That is an area where, I suspect, some of this perception challenge again erodes our capability to do that at the margin. It is not about looking for people who are going to be here forever; it is about using the time they are here to attract them in to become part of our global operation.

Q48 Lord O'Neill of Clackmannan: Professor West said that a number of students are having to take jobs at technician level, which precludes them from reaching the threshold. Do you have anything other than anecdotal evidence to support that? Have the universities provided Universities UK with any kind of feedback of a properly coordinated fashion?

Professor West: We would certainly be able to do that. All universities do a HESA return that tracks students post-graduation, so six months after graduation there is an audit point. That looks at where those students have gone, what employment they are in and the average salary. From 2008 onwards we have seen more graduates going into roles that traditionally, pre-2008, would not necessarily have been seen and identified as graduate-level jobs, but are jobs none the less. Therefore there is a suppression of salaries within the working environments. That applies to UK students as well as international students.

One of the things that universities are doing better than they have ever done in the past is not to rely on the happenstance of companies going on recruitment campaigns and recruitment drives. Most universities are now focusing on how they can embed placements

and internships at the very heart of academic programmes to link to employers. One of my roles is as president of Business West, which is a chamber, and regional chair of the CBI, so I get a perspective from the business communities that are welcoming that better link and engagement with universities and businesses. They are beginning to understand that talent can come from anywhere, any university, so the traditional blue-chip companies that tended to focus, frankly, on a milk round of about four or five universities are much broader now in their thinking, partly because they are being exposed to very different characteristics of students coming through placements and internships.

Lord O'Neill of Clackmannan: Obviously this is welcome and it is relatively new. If we were to look at 2007 before the financial crash, we probably would have been talking about the problems of STEM graduates going into the City. Now that avenue has at least been partially blocked, but not completely. Are the opportunities in the City also completely out of the STEM field, or out of what one would have thought would be the STEM range of employment opportunities? Do you think that we have changed because of that? Is it a local thing?

Professor Gelenbe: Can I say something about that? The City does not just do spreadsheets. The City does a lot of technology. It has very sophisticated computers, very sophisticated algorithms and a lot of mathematics. I think that a lot of jobs in the City are actually very appropriate for STEM graduates. Therefore, we should be happy about that, as we see that we have such a competitive City that is able to draw in the best technical talent.

Lord O'Neill of Clackmannan: At the moment, they are not drawing in as many as they used to.

Professor Gelenbe: Nevertheless, it is an important outlet. It is very important and it should remain at a very high level of quality.

Professor West: We are just seeing a change on the back of some fairly big investments in engineering technology. In the south-west in particular, we are working with EDF as they begin to gear up to develop their nuclear capacities in the south-west, which will be significant. Interestingly for science, technology, engineering and mathematics, this is about big infrastructure, so building construction, as well as some high-tech engineering. We have a huge worldwide shortage of nuclear engineers for commissioning and decommissioning, and what we are beginning to do is work out how we can attract young people, encouraging them to look at science, technology, engineering and mathematics at schools and pull them through.

Projects, for example the BLOODHOUND project, which you may be familiar with—a 1,000 mile an hour car—is about an iconic project that connects with young people in schools to try to encourage them to consider science and engineering technology as a career. We have to get to that point very, very quickly, because we are not creating enough engineers for the country's needs, let alone the global needs.

Q49 Lord Wade of Chorlton: I have two questions really. First, you have all mentioned costs at some stage of this operation. I would like to understand the impact of extra costs, which are now being put upon UK students, and how they are affecting students from abroad. Obviously they must be paying more as well. I would like to understand, if a student from here is paying so many thousand a year, how that reflects on what a student from India would be expected to pay. Clearly you have to look at that, as you have suggested earlier, to the risk and reward question. People are now looking very seriously at whether the cost of their education is going to be rewarded by the extra work and jobs that they can get out of the marketplace. I would be interested in your view on that.

I would also like to address this question of perception. You talk about perception, and clearly you are indicating that what they perceive is not the facts. What do universities do to try to ensure that what they perceive is correct? In other words, what role do you play in trying to counterbalance what you see now as not being correct?

Professor West: Most UK institutions are now charging a fee of between £8,500 and £9,000. All institutions appear to have done that. That is the maximum that you can charge within the UK for home students. Those students access a loan, in the main, through the Student Loans Company and then begin to repay it once they graduate, so they do not have to find the money upfront. Clearly for international students we are in a true market, and universities are allowed to charge whatever they believe that market will bear. Therefore, each institution will tend to have a different price range for international students, which depends on the brand of the institution, how popular they are as an institution, as well as the true cost of delivery—price and cost not necessarily being the same.

There is a broader variability in international fees. For some institutions that are not highly selective, maybe research institutions, the fee for international students may only be £1,000 to £2,000 more than for a home student. Clearly for engineering and medical students, there will also be an additional premium that relates to either bench fees—accessing laboratories—or fees to pay for placements within clinical areas in particular. There is a premium added to those students. Equally that would apply to pharmacy and other clinical professions. There is not one answer, I am afraid, to what the impact on international students is. It depends where they study, what they are studying, how attractive and how strong the market is for that particular institution.

Q50 Lord Wade of Chorlton: Before you go on to the next stage, if that is the case, and I am sure that is right, do students now see themselves much more as customers of universities

than they ever used to? Are universities realising that they are customers and that they look at the offer as customers, rather than, “I’m grateful to be able to get to university and get my degree?” Is that not happening internationally, because inevitably it will? Do the universities not have to look much more closely at what they offer for their costs? Do you need to have three years to pass a degree?

Professor West: There is quite a lot within that, my Lord. The universities are recognising that the relationship between the students and the university is changing. In some instances, it is a direct customer relationship. When they are accessing our halls of residence or restaurants, they are absolutely a customer. We are trying to develop a relationship with the students to be co-creators of learning, so it is not a straight transactional relationship when they are engaging in study. However, what is changing is the need for universities to deliver the highest possible quality education and to deliver on what they promise. If we promise, for example, that we will do a four-week turnaround for assessment and feedback, and that will be of a high quality, then we have to deliver that, so it is a slightly different set of relationships. I think the universities are much sharper than perhaps they have been in the past, because we are in a global marketplace.

We also have to be clear that these students are also looking for an opportunity to enhance their CV, so employability, placements, interaction with companies, careers fairs, careers advice, student support in terms of social, medical and financial, all have to be part of the offer in order to attract them and then retain them. We are also seeing more and more students, both home and international, with quite complex learning needs in many of our institutions. That adds another cost to the delivery of education. We are doing an awful lot to ensure that the package of offer is absolutely right.

Many institutions are also looking at extended three-term degree programmes to try to fast-track, where possible, those students. The students' reaction to that is quite interesting, because many of those students want to work part-time whilst they are studying. Therefore, if you try to do fast-track two-year degree programmes as opposed to three-year degree programmes, you take away their ability to actually work part-time. There is some evidence that maybe their learning is not as deep because they are rushing through; they do not have time to reflect. The jury is out on that one.

Sir Andrew Witty: Specifically from the University of Nottingham's perspective, for domestic students it is £9,000, and international students would be somewhere between £15,000 and £20,000, depending on the resources required. A heavy engineering course would be at the upper end; a lighter one would be at the other end. That gives you a sense from that perspective.

I may be making a slightly controversial comment, but I am struck, as I look internationally, by the fact that different countries have different fundamental philosophies about what you gain from an undergraduate degree. This country tends to be quite quickly focused on deep specialisation. Other countries will use the undergraduate degree to broaden your perspective on life and expect you then to do a postgraduate degree to drive specialisation. The question of whether the UK should explore three or two-year courses should be tied up with that same question.

My personal view, and as an employer, if we are going to stick with three-year courses, for which I think there are significant benefits, there is clearly space for students to have a more broadening educational experience than they currently receive. That is worth thinking about, because the very dramatic contrast between British-produced students and American-produced students is the point at which breadth becomes super-specialised. The

Americans typically take two to three more years of a very broad experiential learning, at which point the student is typically more mature to make choices and they take much more knowledge into their specialisation background. The benefit to an employer is when you bring those people out at the end they come with a much broader package than you would typically find from a British student. I would not automatically say two beats three, but there is an interesting question about whether you could do something more additional in the three that makes the student even more employable. I think that is a reasonable question to ask.

Q51 Baroness Sharp of Guildford: I want to pick up on a remark, Sir Andrew, that you made at beginning of this, when we were asking this question, about the multiple changes in the rules. Currently we have before the House the Immigration Bill, which is going to be introducing yet more changes. I wondered what your perception was, particularly on the tenancy issues here. Whenever students go outside of the student residences and are seeking flats and so forth in the local town, the landlords are going to have to look at their documents and verify them. That is very different indeed for students initially, because these documents have to be with them in the home country to show the immigration authorities, the visa authorities, and they cannot really produce them for landlords. The other one is the changes in the NHS rules. I wondered whether we could have a quick remark on whether turning the screw yet tighter on these things is going to affect perceptions.

Sir Andrew Witty: Just to clarify, on the NHS, you mean the notion that they should make a financial contribution to it.

Baroness Sharp of Guildford: Yes, which may affect postgraduates who are bringing families over.

Sir Andrew Witty: The core issue is what our critics or competitors might do with whatever we might do. We need to be realistic and not naive around anything we do, as somebody somewhere has the opportunity and the potential to manipulate and to spin that information to serve their agenda. Again, I would reiterate that, generally, continuous change along a theme is less preferable than a single-step shift at which we can all move to a new equilibrium and can all work and manage around that.

On the two very specific points that you raised, I would have a slightly bifurcated response. Again if you look internationally, there is nothing very controversial about asking people who are resident in a country to contribute towards a health system. Certainly in the US, all students from wherever they come are mandatorily required to have medical insurance that is significantly more expensive than the numbers that we have been talking about for here. I do not find that particularly troublesome.

I think the unintended consequence of the tenancy type of focus point is it repeats that sensation or that unintended message of guilty until proven innocent. How many times do you have to prove you should be in the country? If you are from outside of the country and you have always dreamt of coming here, if you believe that Nottingham is the place to build your qualification, if you dream of working for a company, there comes a point at which, when you are asked that same question so many times, you think, "I get the message. You have not quite said it that way, but I get the message". I think I would be anxious from that perspective, as much as anything else.

Professor West: I agree that the question is: what is the problem we are trying to solve here, with all this? Either we want to attract international students or we do not, and the subliminal messages are really important. Most international students will have health insurance when they come across. There is a bureaucracy that would be created if you

asked for £150. Is that per year or per term? What are we trying to do within that? The NHS is not good, I have to say, having worked in it for a long time, at collecting money from visitors, so there is a bureaucracy. GPs do not like doing it. Accident and emergency departments do not like doing it. We have to be absolutely clear what the problem is that we are trying to solve.

Secondly, I agree absolutely with Sir Andrew that the burden of whether you are legitimately here or not is continually resting on the student. Students are not the issue in terms of immigration.

Q52 Lord Patel: Before I ask the question, can I correct what you just said about the Immigration Bill? I think the charge is supposed to be £150 per year and for it to be collected as part of the visa application, so it would not be the NHS that would be doing any collections, but that is just a comment. There are other issues about the Immigration Bill, which we might come to.

My question has partly been answered because it was mostly about post-study work, but let us drill down to some details about it. The new selected provisions under the type 2 visas, you have already remarked, Sir Andrew, will create a problem because of the constrained timescale that they have. How much of a difficulty does this cause an employer? Is it such a level of difficulty that it switches off an employer from ever considering international students for employment, or could other mechanisms be used to try to reduce the impact of this?

Secondly, you mentioned your own experience of your son's American experience. Are there other countries where the experience is much more like America compared to ours? The Immigration Bill is flawed in many ways. One is trying to use education to reduce immigration, and therefore putting students into reducing immigration. At the same time,

the Government's ambition is to increase the number of international students who come here. The third part of my question is: what do we do to fulfil that ambition of Government to make UK universities more attractive to international students, despite the perception that our processes are developing and we actually are not welcoming?

Professor Gelenbe: With respect to the welcoming aspect of universities, a certain number of things have been done in addition to this idea of having students justify their presence to their landlords and so on. Other more grave things have happened, I think, which create an unwelcoming image, and one of those is the manner in which we have been organising the postgraduate doctoral studies through doctoral training centres. We would like to attract the best and the brightest, but the doctoral training centres in which most of the funds for doctoral training are being concentrated by the Councils have a separate regimen for UK students and for foreigners. In fact, we cannot offer the same scholarships to an Indian student or to a Chinese student that we can offer to a British student.

This is quite serious, because we claim to be a meritocracy, and at that very young age people are idealistic; they would like to view themselves as being treated equally, according to their abilities and their willingness to work hard, but this is not the case. In fact, there are a lot of contradictory things happening. The first step, which you alluded to, would be to separate the student issues completely from the immigration issue. This should be stated clearly and then you should handle these two things separately, with separate agendas.

Professor West: Sir Andrew was very helpful in his view of extending the period through which students would be able to get access to employment. That for me is a major factor that we need to address in order to ensure that these graduates have that opportunity. The removal of tier 1 post-study work and tier 1 post-study work being difficult have had a

significant impact on our ability to attract and retain international students and, importantly, talent beyond graduation.

Sir Andrew Witty: Perhaps I would just try to make a couple of comments at a slightly broader level, if I can, because I think it is quite easy to get into the detail. It seems to me that it is in the interests of all the institutions involved and the country to have access to the very best talent we can possibly get, from wherever they come from. All the institutions are incentivised to do exactly that. Nobody in GSK wakes up thinking we should hire the mediocre talent; we all wake up dreaming of hiring the best. University of Nottingham recruiters do exactly the same, so there is already a tremendous mechanism to drive in that direction, and it is not clear to me why we need many of these other controls, to put it bluntly, at least within the remit of limiting, controlling and sending signals to students. Surely what we want is maximum application, so that the institutions have the maximum number to choose the best from. It is not obvious to me, from a system level, why it is in any of our interests to artificially reduce the number of applications or to do anything that limits numbers, until the institution says that there are 100, 200 or 500 fabulous candidates.

One of the metrics we monitor at GSK is the number of applicants. Every year, we get thousands more applicants than we could possibly deal with, but we would never dream of trying to stop people applying, because somewhere in those thousands of applicants there is an amazing talent. It seems to me that this whole debate slightly misses the fact that we have two layers of institutions—companies and universities—that are tasked and ought to be tasked to only bring in the highest quality that they can find. That seems to be a much more effective line of defence, if you want to describe it that way, which is subtly the way in which all this is being done. Actually, it is a very effective mechanism.

Lord Patel: Is the constraint not then that they have to go through the border agencies to sort out language, visas and to convince them that they have enough money to come here? That presumably takes place at the same time or before they apply to universities.

Sir Andrew Witty: We can compare this with other countries—the US is a very good example. In the US you have to show that you have an offer from a legitimate institution and you have the financial means to pay whatever the fees are, so there is a minimal chance of you becoming reliant on the state. That is it. That is from a country that is fairly famous for its border controls.

The Chairman: We need to draw this session to a close. I would like to thank our three witnesses very much indeed for your very helpful responses to our questions. You will in due course receive a transcript in draft form for you to make editorial changes, if you wish. Also, if there are any points that we have not asked or that we did not give you a chance to cover in enough detail, please feel free to write in with further information and we will include that in our published record of our evidence. Thank you very much.