



Science, Engineering, and the Immigration Cap – Preliminary Reaction & Proposals

25th Nov 2010

CaSE has welcomed the efforts made by the Home Office to cater for the UK's need to attract and accept talented scientists and engineers. However, we remain concerned that the changes to the systems may well decrease the number of such individuals who can enter the country.

In this paper we analyse the Government's announcements. The last section contains our own proposals on how the Points Based System could be reformed to give better recognition to the skills of scientists and engineers.

Home Office Announcements

On November 5th, the Home Secretary, Theresa May, said:

“We can reduce net migration without damaging our economy. We can increase the number of high value migrants: the entrepreneurs, the investors, the research scientists – at the same time as we reduce the total number of people coming to Britain through the economic routes.”

On November 23rd, the Government announced changes to the immigration system. The salient features are:

- **An annual limit of 21,700** for those coming into the UK under the skilled and highly skilled routes - 20,700 under the skilled route and 1,000 under the new 'exceptional talent' route. The Tier 1 General route will be shut down.
- Raising to £40,000 the minimum salary for those coming through the **intra-company transfer route** (ICTs) for more than 12 months. There is no limit on the number of ICTs.
- A Tier 1 route for persons of **exceptional talent** will be introduced. This will cover migrants who have won international recognition in scientific and cultural fields, or who show sufficient exceptional promise to be awarded such recognition in the future. Applications by those with exceptional promise will be endorsed by 'a competent body' in the relevant field. The 'exceptional talent' category will be subject to a limit of 1,000 places. Tier 2 will continue to be open to migrants working in these fields.
- Requiring occupations in Tier 2 to be at **graduate level**. This limit will not apply to in-country applications from those already here, or dependants. Nor will it include Tier 2 (General) applicants who are filling a vacancy with a salary of more than £150,000. The Tier 2 (Sportsperson) and Tier 2 (Minister of religion) routes will also be exempt from the limit.

- The figures above will be subject to an **annual review**, carried out by the MAC.
- The minimum level of English **language competency** for Tier 2 (General) applications will be increased from basic to intermediate level (B1 on the Common European Framework of Reference).

Applications for certificates of sponsorship will, where the limit applies, be considered on a monthly basis. If the monthly allocation is oversubscribed, applications will be ranked according to: (1) shortage occupations in the first instance; (2) whether the post requires higher academic qualifications; and (3) salary. It is unclear if there is an order of priority between 2 and 3.

While we welcome the explicit recognition of scientists and engineers under the exceptional talent route, these entrants will be capped at 1,000. Thus, concerns remain that the migration system will significantly reduce the numbers of scientists and engineers entering the UK. We urge the Government to revise the Tier 2 criteria so that it is fairer to those working in academia and also recognises the strategic importance of allowing scientists and engineers to invest their skills in the UK.

Overall changes in numbers

- In 2009, 13,900 migrants entered the UK under the Tier 1 General route (and 300 under previous comparable scheme).¹ This will be reduced by 13,200 to 1,000 in the “exceptional” category.
- In 2009, 8,600 migrants entered the UK under Tier 2 resident labour market test or shortage occupation routes (and 5,200 under the comparable predecessor route). This totals 13,800 and will be increased to 20,700, a rise of 6,900.²
- Therefore, Tiers 1 and 2 will drop by 6,300. However, note that only graduates will now be allowed to enter through Tier 2, so some proportion of Tier 2 migrants that were entering before will now be. Unfortunately, UKBA does not collect data on the level of qualifications of applicants, so we do not know what effect this will have on the number of applicants.

Defining Exceptional Talent

The inclusion of a route for exceptional scientists and engineers is to be welcomed, however small the numbers might be. The Home Secretary has said that details are currently being finalised, but that:³

- The Research Councils could play a role in identifying who would be of benefit.
- The scheme would not just focus on those scientists already considered exceptional, but also support those talented people who were at the beginning of their careers.

¹ Limits for Tier 1 and Tier 2 for 2011/12 and supporting policies, Migration Advisory Committee, November 2010

² Limits for Tier 1 and Tier 2 for 2011/12 and supporting policies, Migration Advisory Committee, November 2010, page 9

³ In response to a question by Gavin Barwell in the House of Commons, 23 November 2010

The sort of definition that might work could include: member of a national academy, chartered engineer, chartered scientist status, receipt of named and prestigious international awards (Nobel prizes being top of the list), receipt of named and highly-competitive funding awards (e.g., Royal Society University Research Fellowship, Wellcome Trust Fellowship or Investigator Award and Howard Hughes Fellowship). The desired skill level of the candidates will be affected by how easily scientists and engineers find it to enter under the final criteria adopted by Tier 2.

Updating Tier 2

Points for Tier 2 should better reflect priority and academic progression. Only graduate applicants will now be considered, but the **scaling for qualifications** needs to be adjusted, possibly linearly, to reflect length of study, so that a PhD is worth twice a BA etc.

Academic progression could go from 20 BA, 25 MA, 40 PhD/MBA/MD (or equivalent clinical qualification), 60 for Head of Department, Dean etc. Points could also be measured for other **marks of career progression and skill level**, for example, being a member of a National Academy, having chartered engineer or scientist status, or qualifying under the exceptional category of Tier 1 (if the 1,000 limit is exceeded).

The migration system recognises shortage skills, but it should also **prioritise strategic skills** for growth – these include most STEM subjects and, for example, modern foreign languages. The rationale for which subjects are strategic is well-established (e.g., by the Higher Education Funding Councils). We recommend that applicants should be able to score additional points for having a job offer in a strategic or shortage area.

Fortunately, it is straightforward to judge the performance of an individual researcher through the constant stream of peer review that they are subjected to, both for publications and funding. Because of this, academic or charitable organisations that have offered a non-EU migrant a job will already have conducted a thorough assessment of their skills and this should be considered sufficient for a post-doctoral Tier 2 applicant – certainly for Highly Trusted Sponsors. In addition, Highly Trusted Sponsors should not have to do resident labour market test - they would not be seeking to employ from abroad if it were not necessary, especially given the current hurdles, uncertainties and delays in place.

The **emphasis on salary** over qualifications disadvantages many STEM professionals. It is vital that the points are recalibrated to better reflect skill levels for workers who are not primarily motivated by salary. The MAC stated “An employee would not accept less than they are worth, because they would be able to secure a higher wage with a different employer.” But researchers may compromise on salary if they feel that other aspects of their work have intrinsic value that was more important to them. For instance, a recent survey of government research institute scientists found that they were typically motivated by the ability to do high quality, curiosity-driven research rather than salaries.⁴ Similarly, a survey of biologists with a PhD found that they would accept lower wages in industry from companies that engaged in more research.⁵ Other evidence

⁴ Divya Jindal-Snape, Jonathan B. Snape, (2006) "Motivation of scientists in a government research institute: Scientists' perceptions and the role of management", *Management Decision*, Vol. 44 Iss: 10, pp.1325 - 1343

⁵ Stern, Scott. 2004. Do Scientists Pay to Be Scientists? *Management Science* **50(6)**: 835-853.

suggests that for university professors, higher seniority is associated with lower salaries because the level of specialism has reduced the possible employers.⁶

Research salaries are also less reflective of academic and economic merit partly because the economic gains made from publicly funded research tend not to be retained by the organisations where the research is performed, let alone return to the individuals involved. Salaries are also not highly reflective of economic value to the country. We understand that some of the rationale for scaling down the number of points awarded for a PhD earlier this year was precisely because of this salary data, but it has resulted in a double penalty for those who prioritise other factors when choosing their career.⁷

New post-doctoral researchers, typically start on about £29-31,000.⁸ Looking at all university post-doctoral research staff, 17.5% earn between £25,001 and £30,000, and 35% between the £30,001 and £35,000.⁹ It is essential that we are able to recruit talented early career postdoctoral researchers, often straight from a PhD. These can even be the most productive research years.

As yet, there is little clarity over the **pooling system**. One Home Office release said that Tier 2 applicants who reach the necessary criteria will be competing against other applicants and in months when the limit is oversubscribed those with the most points will qualify for one of the certificates of sponsorship available each month. However, another Home Office web page stated that shortage occupations would be given first priority. It is vital that an over-emphasis on salary does not mean that, while researchers may qualify to enter through Tier 2, they struggle to rise high enough in the pool to be granted visas.

We would like to understand the rationale for increasing the English language requirement. It is important that it is not unnecessarily expensive, time-consuming and bureaucratic.

CaSE Proposals for Tier 2 Summarised

Key points: Additional points for STEM subjects, better scaling of qualifications with respect to salary progression, including merit for career progression.

Applicants must gain 100 points and have a job offer salaried at a minimum of £25,000, from:

Required: 10 points - Maintenance
(flexibility required for individuals who have just attained PhDs)

Required: 10 points - English language

Required: 20 points - BA

⁶ Ransom, Michael R. 1993. "Seniority and Monopsony in the Academic Labor Market". *The American Economic Review* **83(1)**: 221-233.

⁷ We note that the MAC excludes ministers of religion when calculating the mean salary for Tier 2 - presumably these migrants are judged not to be motivated by salary in the same way as other sectors, so that salary ceases to reflect their worth. The same applies to researchers (and indeed, many other sectors).

⁸ Data from Vitae 2010

⁹ HESA data for UK HEIs 2008/09 from Universities UK, November 2010.

Other attributes: (need to score 60 points from the following, only one in each category):

Qualifications: 5 points - MA
 20 points - PhD, or equivalent clinical qualification

Career Progression: 20 points – Research Career Progression
Measures of Research Career Progression could include chartered engineer or scientists status, being a Head of Department, Dean etc. Qualifying under the exceptional category of Tier 1 would also be included, in case the 1000 limit is exceeded.

Job Offer: 10 points - passing Resident Labour Market Test
 20 points - job in a strategic (including STEM) or shortage occupation

Future Salary: 20 points £25-30,000
 25 points £30-35,000
 30 points £35-40,000
 35 points £40-45,000
 40 points above £45,000

Other Issues

- The migration system does not reflect the flexibility of funding sources. There are problems for individuals that have won highly competitive funding from one organisation but are actually employed by another, often a university. In order to streamline this process, and enable those individuals to enter under Tier 2, rather than Tier 5 (which does not really suit them or their needs), we suggest that a Highly Trusted Funding status be conferred on the organization providing the funding. In a sense the Highly Trusted Funders are responsible for vetting the candidates and assuring their quality, while their employers will meet the legal requirements of a Tier 2 sponsor. There also needs to be a better match between length of funding period and length of visa.
- There is a need to have multiple entry visas under tier 5 for researchers who are visiting the UK on a regular basis for collaboration. Tier 5 visa permits multiple entry sponsorship but only if the stay is longer than 6 months – this is not rational for STEM researchers and workers.
- People on temporary worker visas should be able to apply for a tier 2 visa without leaving the UK to do so - this would enable researchers working temporarily in the UK to make the transition and would keep these skilled workers in the UK.