Institute of Physics response to the Migration Advisory Committee Call for Evidence on Salary Threshold and Points-Based System Commission

November 2019

Summary

Brexit and the end to free movement have necessitated reform to the UK's immigration system. The current system, applied to all migrants, risks damaging the competitiveness of the UK economy, undermining research and innovation and productivity. European migrants have been vital to the UK's ability to overcome its STEM skills shortage and remain a world leader in science and innovation. A new immigration system must be designed to support science and must not undermine it. Current proposed salary thresholds are far too high and apply a blunt and one-dimensional assessment of the value of a worker and could do significant damage to the UK economy, especially outside of London and the South East, and undermine efforts to meet our 2.4% R&D target. An open, simple and pragmatic approach to immigration is essential to the future success of the UK's science and innovation community.

The IOP believes that:

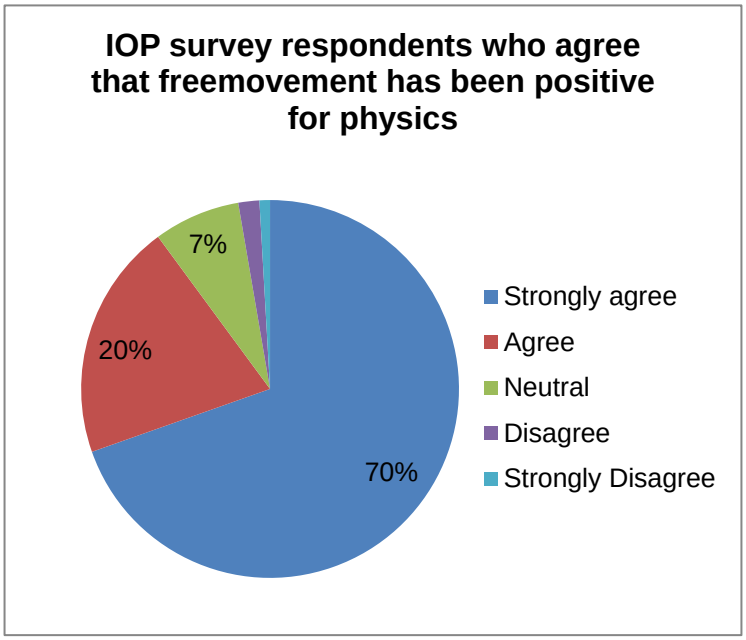
- Salary is a poor indicator of value to the wider economy and society.
- The current proposed salary threshold of £30,000 for experienced professionals in most occupations is too high and should be lowered significantly.
- The impact of a salary threshold on under-represented groups must be fully understood and considered, as there is potential to worsen the representation of groups such as women.
- A comprehensive assessment of the impact new immigration rules will have on the economy, innovation and science must be undertaken to ensure that damage is not done to vital parts of the economy by hampering the ability of organisations to attract staff.

Immigration is crucial to the UK's science community

Freedom of movement has been a net-benefit for the UK's scientific community. Allowing the UK to attract leading scientists from across Europe, collaborate easily with European institutions and researchers and supporting UK students to study and work abroad has enabled the UK to punch well above its weight in science and innovation.

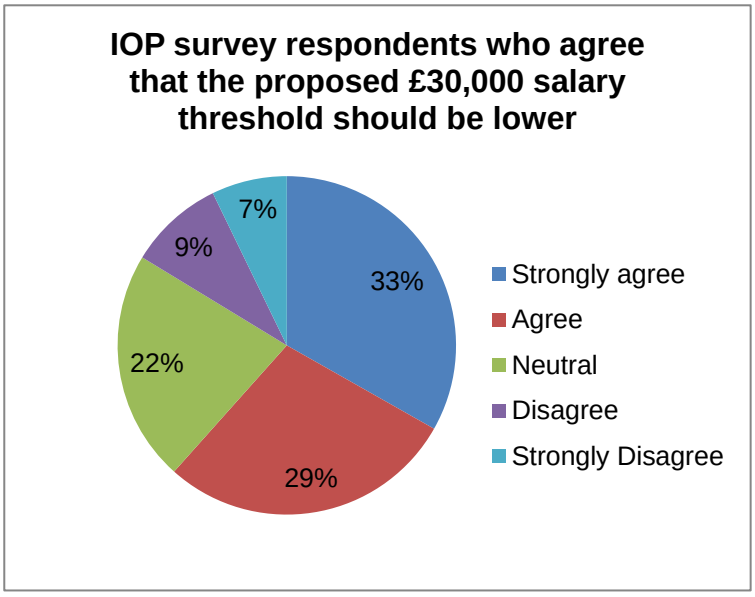
Leaving the EU presents significant risks for science and physics, jeopardising the ability of UK researchers and businesses to collaborate within European science programmes, ending free movement, and ending our membership of Euratom, for example. A no-deal Brexit remains the most damaging prospect for science. As such the IOP has been clear of the need for the UK to pursue the closest possible relationship with the European Science community.

A survey of IOP members[1] highlights the strength of feeling within the physics community that free movement is beneficial to the scientific community and the UK's status as a world leader within science. 89.9% agreed that free movement had been positive for physics and 54% stated it had been a positive for their career. International movement is an important feature of researchers' careers and 72% of UK-based researchers spent time at non-UK institutions between 1996 and 2012.[2]



Physics and immigration

As the UK leaves the EU, and therefore ends free movement, it will be necessary to implement a new immigration system. This system should be simple, transparent, and fair and act to enhance the UK's science base by allowing it to attract talent from across the globe.

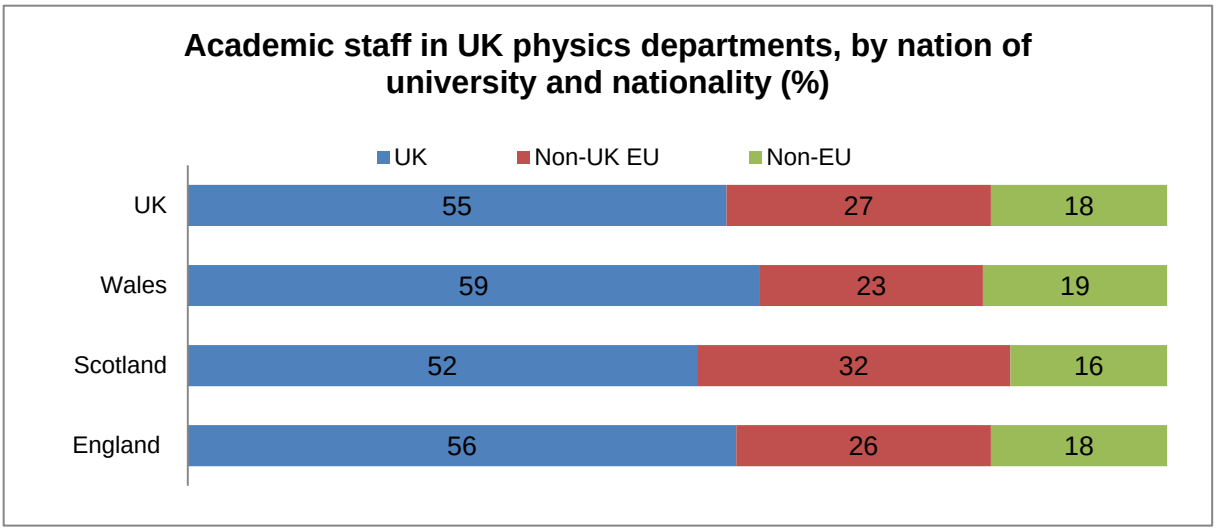


The IOP does not support the proposed salary threshold of £30,000 for most occupations for experienced professionals 61.6% of wider IOP members surveyed in September/October 2019 believe that a salary threshold of £30,000 is too high and should be lower. 50% of surveyed IOP members responsible for hiring also believe the £30,000 threshold is too high.

A salary threshold that is too high risks damaging the ability of businesses and academic institutions to attract the staff that they need. This risks undermining the competitiveness of the UK and compounding its STEM skills shortage. Unfortunately it is unrealistic to assume that STEM sectors will be able to recruit from the UK population given the gap between the needs of the sector and the number of STEM qualified individuals the UK produces.

[1] The IOP conducted a member survey in September/October 2019, on proposed immigration reforms. The survey was completed by 320 IOP members, with 84 members being responsible for hiring decisions within their organisation and the remaining 236 representing the wider IOP membership. It will be made clear through this paper which group (those responsible for hiring decisions or the wider IOP membership, is being referred to).

[2] Elsevier, International comparative performance of the UK research base, 2013



This reality is unlikely to change in the coming years and therefore an open and pragmatic immigration system is essential to the UK's ability to meet its 2.4% R&D target, tackle the UK's productivity challenge and build a more prosperous economy. Among engineering, science, and hi-tech firms, 44% report difficulties in finding experienced recruits with the right STEM skills, particularly high-level STEM skills[3], indeed 75% of roles listed in the Home Office's Shortage Occupation List are in STEM.[4] It is estimated that failing to meet demand for engineering skills will cost the UK £27bn a year from 2022[5], jeopardising the UK's ability to drive innovation, growth and tackle major challenges. A recent IOP survey indicated that 58% of IOP members responsible for hiring decisions had struggled to hire UK nationals with the right skills, with 84% specifying that they currently employ EU migrants and 85.8% indicating that they employ non-EU migrants.

In 2016-17, 30% of all academic staff, across subject areas, (61,580) came from outside the UK, rising to 33% of academic staff in STEM subjects. The proportions are even higher for those on research-only contracts, with 48% of staff from outside the UK, including 66% of mathematics staff.[6] More than 13,000 scientists and engineers came from outside the European Union to work in the UK in 2014/15 alone.[7]

In 2014/15 31,635 EU nationals (excluding UK nationals) worked in UK universities, making up 16% of the total, and a further 23,360 came from outside of the EU, 12% of the total.[8] For physics these figures are much higher, with 27% of academics in UK physics departments coming from the EU and a further 18% coming from outside of the EU.[9] Some 20.8% of physics PhD students, 32.2% of postdoctoral researchers, and 19.7% of professors are from the EU.

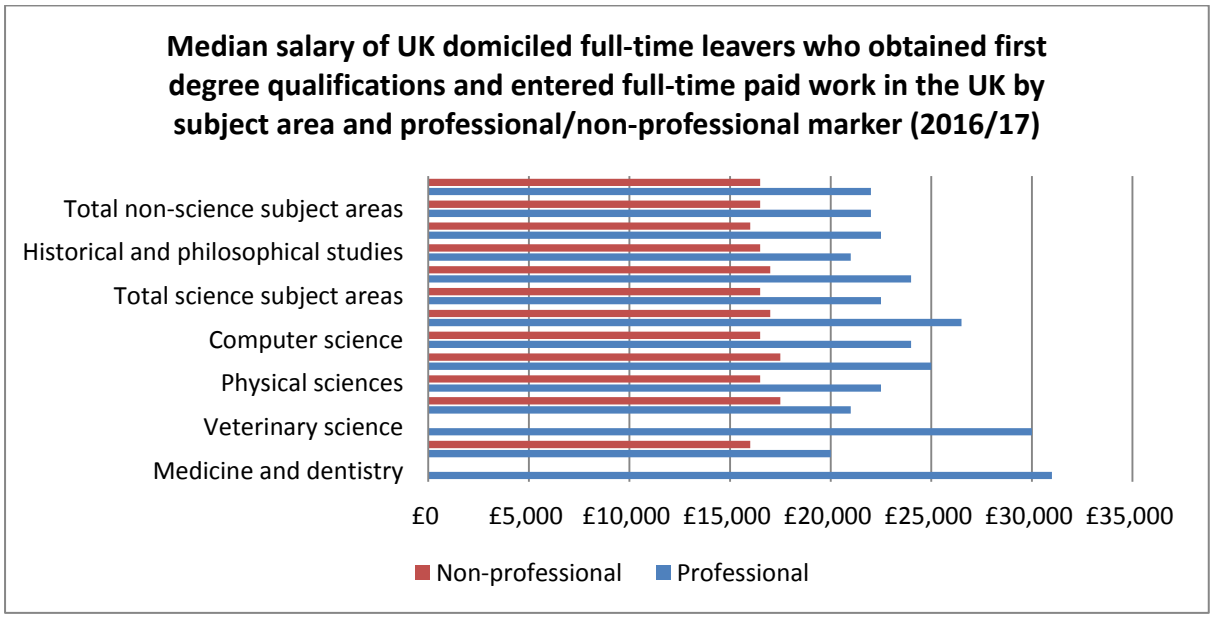
Research from the Russell Group suggests that a £30,000 threshold would mean that 59,000 positions, one-third of roles within the Russell Group, would not be open to future

[3] http://news.cbi.org.uk/reports/education-and-skills-survey-2015/education-and-skills-survey-2015/
[4] Shortage Occupation List 2015
[5] http://www.engineeringuk.com/Research/Engineering_UK_Report_2015/
[6] http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee/an-immigration-system-that-works-for-science-and-innovation/written/84224.pdf
[7] http://www.sciencecampaign.org.uk/asset/F50CF4C1-93C7-4F38-89E55D6BDBB70ED6/
[8] https://royalsociety.org/topics-policy/projects/uk-research-and-european-union/role-of-eu-researcher-collaboration-and-mobility/snapshot-of-the-UK-research-workforce/
[9] https://www.iop.org/policy/consultations/file_72542.pdf

international candidates. Currently 10% of these 59,000 roles are filled by EU migrants, which do not meet the skilled salary threshold.[10]

A £30,000 salary threshold could also severely damage the UK's ability to attract and retain researchers at an earlier stage in their career, and technicians who are vital to the functioning of physics departments. The impact that this could have on the UK's research base, and economy, must be carefully considered. An IOP longitudinal study carried out between 2006-2010 of physics graduates in employment earned an average salary of £22,500.[11] Given stagnant wage growth over the past decade this figure has not changed significantly (see HESA data below). The median salary for respondents with MPhys/MSci degrees was £23,300, 8.7% higher than the median salary for respondents with BSc degrees of £21,500.[12]

The impact that a salary threshold may have on underrepresented groups must also be considered in any proposals brought forward. The median salary for females (in the IOP longitudinal study) working in physics was £21,800, 4.3% lower than their male peers, which suggests that a salary threshold could have the unintended consequence of undermining the UK's ability to improve the representation of women in STEM.[13]The average salary for men working in science and engineering in the UK in 2017 was £41,200, while women were paid £33,000, a difference of 20 per cent, according to a survey carried out by the *New Scientist*.[14]



Source HESA[15]

The Migration Advisory Committee (MAC) evidence showed that EU migrants have not prevented UK nationals from getting jobs and have not lowered wages. The MAC also states that "higher-skilled workers tend to have higher earnings so make a more positive contribution to the public finances. The estimated labour market impacts, though small, also

[10] https://russellgroup.ac.uk/media/5750/challenges-and-costs-of-the-uk-immigration-system-for-russell-group-universities.pdf
[11] https://www.iop.org/publications/iop/2012/file_55924.pdf
[12] https://www.iop.org/publications/iop/2012/file_55924.pdf
[13] https://www.iop.org/publications/iop/2012/file_55924.pdf
[14] https://www.newscientist.com/article/mg23731670-100-how-the-gender-pay-gap-permeates-science-and-engineering/
[15] https://www.hesa.ac.uk/data-and-analysis/sfr250/figure-13

suggest that higher-skilled workers are of greater benefit as do any impacts on productivity and innovation".[16]

As such any future immigration policy should be based on the needs of business and the education sector to ensure the necessary supply of skilled labour. The impact of salary threshold on the UK's regions is an issue of high concern to the IOP. The graph below highlights the significant regional differences in the UK's median weekly pay. A salary threshold, at whatever level, would have the unintended consequence of damaging the ability of businesses and institutions in many parts of the UK to attract international talent by virtue of local economic and labour market conditions. This risks making jobs outside of London and the South East less competitive as they are less likely to attract a salary that meets the threshold. Salary is not a proxy for value, and given regional and sectoral disparities that affect salary its use in determining whether an individual would be a valuable addition to the UK is highly flawed and could have severe consequences on the UK's competitiveness.

Median weekly pay for full-time employees by region of residence

	2008	2010	2012	2014	2016	2018
2018 prices (adjusted for CPI inflation)						
United Kingdom	**601**	**589**	**556**	**546**	**567**	**569**
North East	529	524	499	502	518	512
North West	566	557	518	511	529	530
Yorkshire and The Humber	557	546	511	504	524	521
East Midlands	565	555	523	509	528	530
West Midlands	564	554	515	507	534	537
East	626	618	583	568	599	590
London	730	717	673	650	665	671
South East	658	647	610	597	612	615
South West	567	553	524	522	540	538
Wales	533	539	499	505	525	519
Scotland	581	575	547	546	564	563
Northern Ireland	524	517	503	484	519	523

Source: Parliament research note, Office for National Statistics, Annual Survey of Hours and Earnings[17]

65.4% of IOP members, responsible for hiring decisions, surveyed in 2019 believe that any salary threshold introduced should be designed to reflect the needs of employers and 59.8% of wider IOP members surveyed believe the organisation they work for would be worse off under more stringent immigration rules.

IOP positions

[16] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741926/Final_EEA_report.PDF

[17] https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8456#fullreport

- **Salary is a poor indicator of value to the wider economy and society.**
- **The current proposed salary threshold of £30,000 for experienced professionals in most occupations is too high and should be lowered significantly.**
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Conclusion

The UK's science and innovation communities rely heavily on attracting talent from abroad due to the UK's long-term and systemic STEM skills shortage. The UK has been able to overcome its domestic skill shortage thanks to the ease with which UK businesses and academic institutions have been able to attract the best staff from across Europe. This has sustained the UK's competitiveness and supported innovation, ensuring it remains a location of choice for research and innovation.

The current immigration system, which applies to non-EU/EEA workers, makes it much more challenging to employ workers from outside of the EU. The end to free movement means the UK's immigration system must reform as the current immigration system could block access to EU and non-EU workers. A more open and simpler immigration system will be essential. No system will replace the ease and simplicity as the European common market for employers, but a new system must work for business, academia and the people the UK will seek to attract.

About the IOP

The Institute of Physics is the professional body and learned society for physics in the UK and Ireland. We seek to raise public awareness and understanding of physics and support the development of a diverse and inclusive physics community. As a charity, we are here to ensure that physics delivers on its exceptional potential to benefit society. Alongside professional support for our members, we engage with policymakers and the public to increase awareness and understanding of the value that physics holds for all of us. Our subsidiary company, IOP Publishing, is a world leader in scientific communications, publishing journals, ebooks, magazines and websites globally.

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