International Mobility of Researchers

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OECD Workshop on Stimulating Knowledge Transfer
RAND Europe is an independent not-for-profit public policy research institute

helping to improve policy and decisionmaking through research and analysis
Aims of the study

• Provide a better understanding of mobility to and from the UK and more widely in the context of Brexit, but also as an important part of the research system.

• Three main questions
  – What are the patterns of international researcher mobility?
  – What are the drivers of and barriers to mobility?
  – What are the benefits and consequences of mobility?

• Aimed to cover researchers in academia and industry, though most evidence on academia

• UK focus but taking in wider evidence in the literature review
Approach

• Rapid evidence assessment
  – 65 studies included – mix of survey data, secondary analysis, interview data and bibliometric/patent analysis.
  – Also identified 10 datasets relevant for inclusion

• Survey
  – Online survey of academic researchers in the UK in March 2017
  – We received and analysed 1,285 responses
Findings

• Patterns of mobility for the UK
• Drivers and barriers of mobility
• Benefits and disadvantages of mobility
The UK is an attractive destination for researchers and PhD students

Outflow of UK researchers to elsewhere in EU: 600

Inflow of researchers from elsewhere in EU to UK: 3,600

Increase in percentage of UK academic staff who are non-UK nationals:

- 2005/6: 19%
- 2015/16: 29%

The UK makes up 5% of OECD countries’ population

but hosts 15% of the students studying for masters and PhD degrees in OECD countries
Most mobility to and from the UK is from a small set of western countries

Regardless of duration, the USA, Germany and France are the most common destinations for researchers from the UK. Australia, Canada and Japan are also important destinations.

80% of non-UK nationals in the UK have EU or North American nationalities.
People move for professional reasons…

Professional opportunities encourage mobility:

- **Training**
- **Jobs**
- **Research environment**

**Professional motivations** are more important than **personal drivers** in mobility of researchers overall.
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Professional opportunities encourage mobility:

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**Career development** is the most commonly cited reason for mobility to the UK and long-term mobility overseas.

**Professional motivations** are more important than **personal drivers** in mobility of researchers overall.

Shorter term moves are to **work with particular people and/or on particular topics**, and these reasons also matter to those moving for longer periods.
People move for professional reasons… but stay in or return to the UK for a mix of personal and professional reasons

Professional opportunities encourage mobility:

- **Training**
- **Jobs**
- **Research environment**

**Career development** is the most commonly cited reason for mobility to the UK and long-term mobility overseas.

**Family and personal reasons** are the top two drivers of non-mobility, followed by career development.

**Professional motivations** are more important than personal drivers in mobility of researchers overall.

Shorter term moves are to *work with particular people and/or on particular topics*, and these reasons also matter to those moving for longer periods.

For those returning to the UK, **career development** is the most frequently selected driver, followed by family and personal reasons.
Drivers and barriers vary depending on career stage and personal circumstances

- Relative importance of drivers varies across career stages, geographies and gender

Early career researchers are driven by opportunities to **advance their career and develop their skills**

**Personal factors are more important** to more senior researchers alongside research autonomy and research culture
Having a partner and/or children are important barriers to mobility

- **60%** of respondents said that having a **long-term partner** made them less likely to move between countries.
- **79%** of respondents said that **having children** made them less likely to move between countries.
- **92%** of respondents’ choice to **stay in the UK**.
- **43%** of respondents’ choice to **move back to the UK**.

Amongst those with children, **family reasons** are cited as a reason for:

Finding **suitable employment for a partner** is the most frequently cited barrier to mobility amongst those with a partner except for short-term mobility.
Most researchers feel good researchers are expected to be mobile

79% of researchers agree that there is an expectation of international mobility in the research community.
Who benefits from international mobility?

- International mobility linked to ‘brain drain’
  - Term coined following a report by the Royal Society (1963) on emigration of scientists to US – helped establish it as an issue

- The UK benefits as a destination country:
International mobility can benefit both source and destination countries

- Source countries also benefit

UK is host to many EU-funded early career researchers and doctoral students, many of whom will return home with skills, knowledge and networks

40% of foreign-born researchers report on-going research collaborations with researchers in their countries of origin
How to attract, retain and support researchers so they best contribute to country development?

• Reasons for moving rather than staying
  – extent to which there are good prospects for advancing careers in home country,
  – ability to work with good quality researchers on interesting topics

• Ideas for encouraging staying and returning
  – Offering more job security for early career researchers
  – Clear and accessible pathways to pursue and advance careers within and outside academia
  – Support those overseas to maintain their relationships with those in their home country (e.g. small scale funding for travel costs, joint funding calls)
Postdoctoral researchers

The **postdoctoral period** is important for mobility yet receives less focus in literature than PhDs

38% of UK researchers move to take a postdoctoral position in another country following their PhD studies.

43% of postdocs cite that the **availability of research funding** is a particularly important barrier to mobility for early-career researchers.

Gradsutes from elsewhere in the EU are **even more likely than UK nationals to move overseas after graduation**, and there is also the indication that international postdoctoral mobility is becoming more common.

A key driver of mobility for postdocs is **career progression**, and personal circumstances are generally considered to be less of a barrier for this group than for more senior researchers.
Elite scientists

Elite scientists are drawn to **research excellence**

- Funding is **less** of a barrier for this group
- Elite scientists are drawn to **strong institutions** who already have excellent researchers
- The **US and UK** are key destinations for elite scientists

More senior scientists may better maintain **collaborative links with their country of origin** and may be better able to benefit from networking benefits as well as gains in terms of academic performance
Women are less internationally mobile than men, facing greater personal barriers.

Personal relationships, children and family care responsibilities can inhibit mobility.

- Male: 28%
- Female: 21%

Male researchers are more likely to be mobile than female researchers.

Childcare arrangements are important factors in mobility decisions, especially for women.

When they do move, women report greater benefits from mobility.
Mobile researchers perform better…

• Mobility is associated with
  – Better international networks
  – More research outputs (publications, patents)
  – Higher-quality outputs
  – Better career outcomes

– Benefits for early-career researchers:
  » Skills gained
  » Career development

– Benefits for senior researchers:
  » Collaboration and networking
  » Academic outputs
Mobile researchers perform better…
but it’s not clear if mobility is the cause

- Few studies have tried to establish a causal link between mobility and research performance
- Results are mixed:
  - Some studies suggest the positive outcomes are a result of mobility
  - Others suggest the differences come from differences in the characteristics of researchers who choose to be mobile
  - Others find no difference, e.g. in productivity of elite mobile vs. non-mobile researchers
- Biased self-reporting?
  - Mobility expectations not grounded in evidence of improved performance