

Skills Training for Postdoctoral Researchers

- How best to prepare postdocs for a variety of careers?

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EUA-CDE Thematic Workshop, Tbilisi,
23rd January 2020

Training researchers...

Innovators in society - Rigorous innovative researchers with desire for impact

**(eg EU aspiration of R&D to be 3% of GDP
U.K. Industrial Strategy R&D to be 2.4% GDP)**

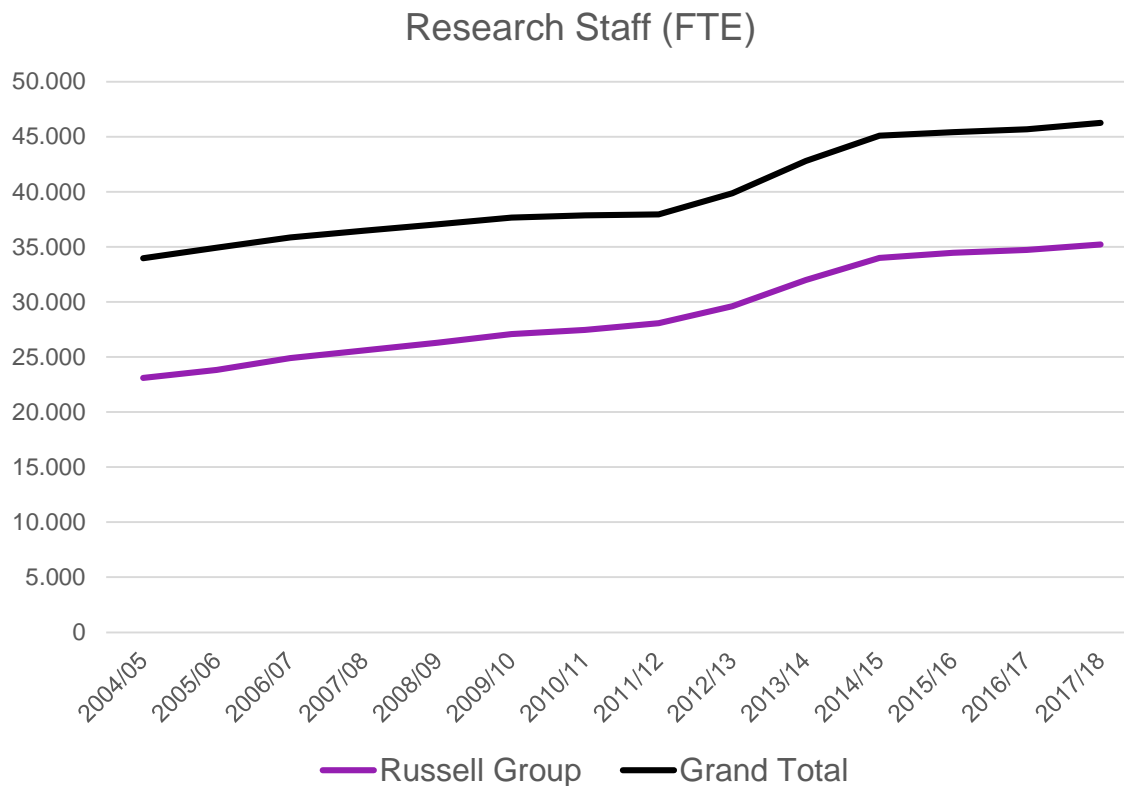
To create...

- Research and impact
- Innovation and new businesses
- Well researched policy
- Research led and informed curricula

Researcher Careers

- Research in Higher Education (HE)
- Lecturing, teaching and research in HE
- Teaching outside HE
- Public, Private and Charitable sector research
- Policy and Government (incl. Think Tanks)
- Entrepreneurial
- Managerial
- Professional (Law, Engineering, Medicine, Architecture, University Administration, Charity Management, ...)
- Communication (Media, Publishing, Science Communication,...)
- Consultancy

UK's postdoctoral early career researcher population



Postdocs	
UK total	46,000
UCL	3,500
Cambridge	4,000
Yale	1,200
KU Leuven	1,293

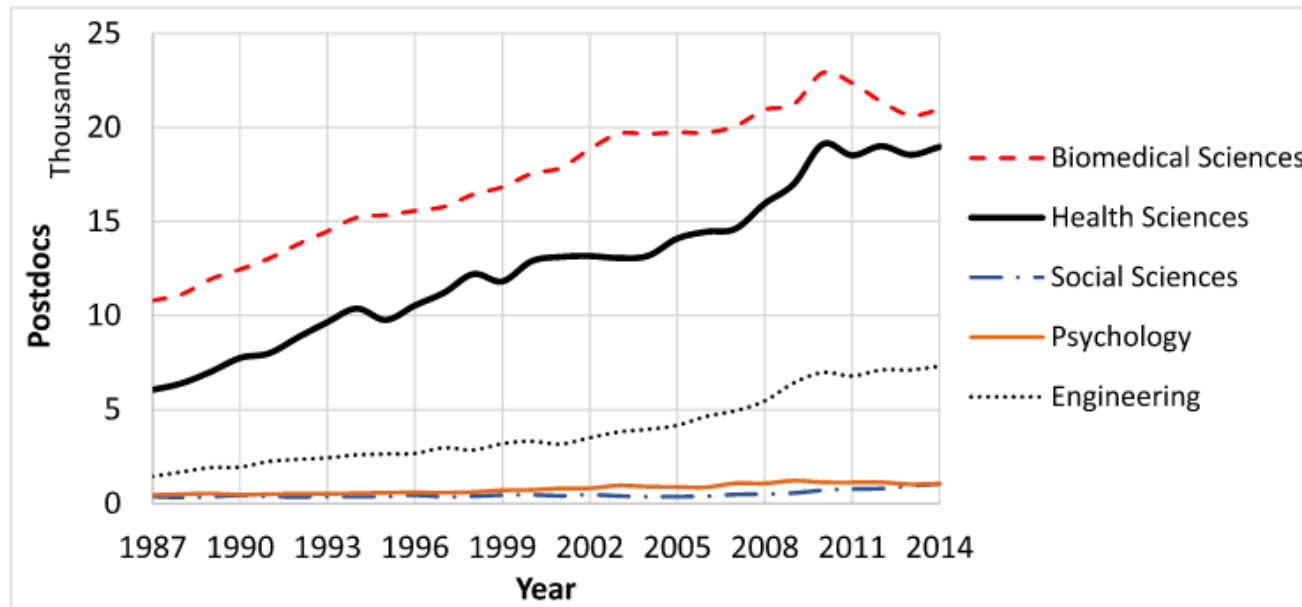
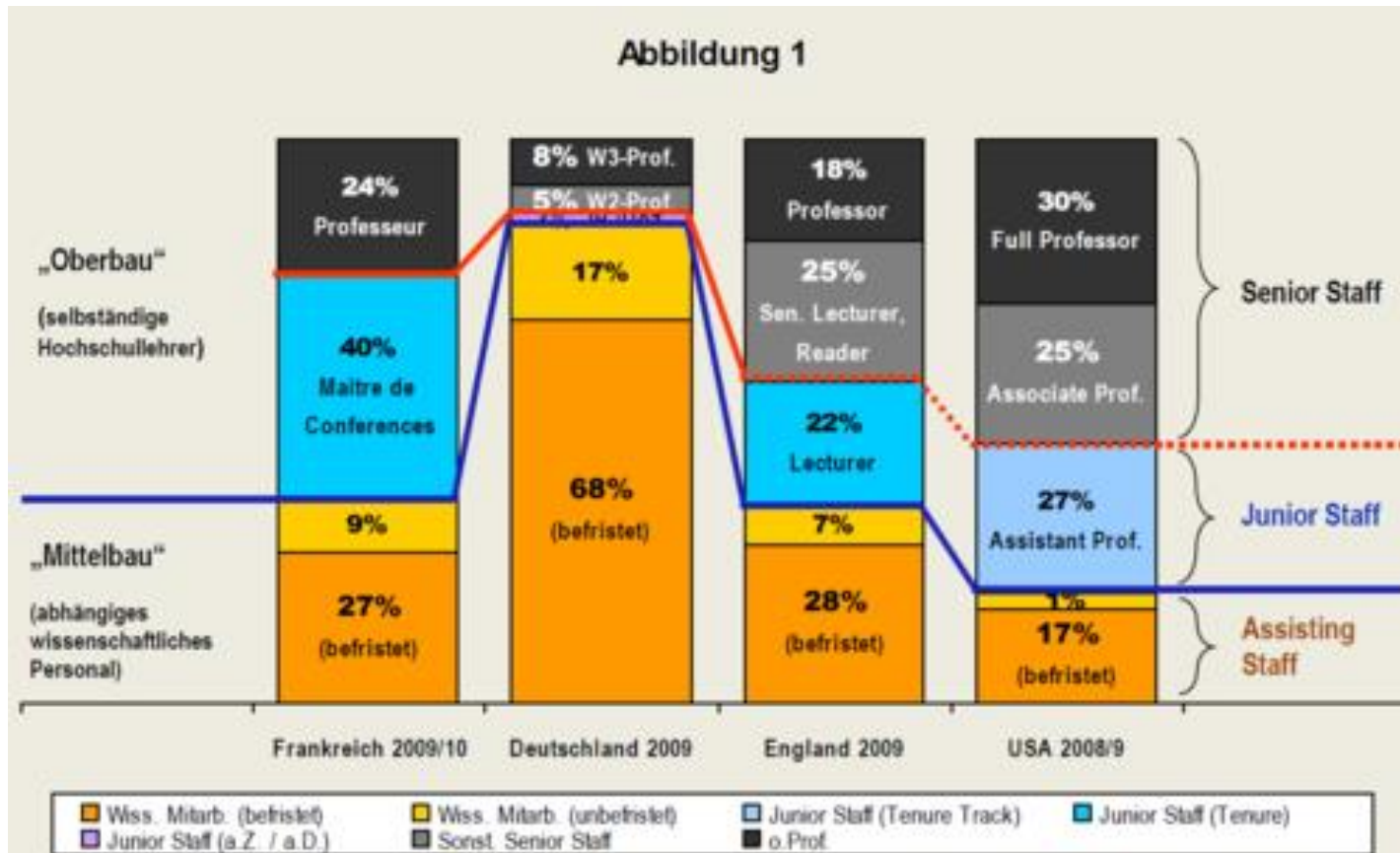
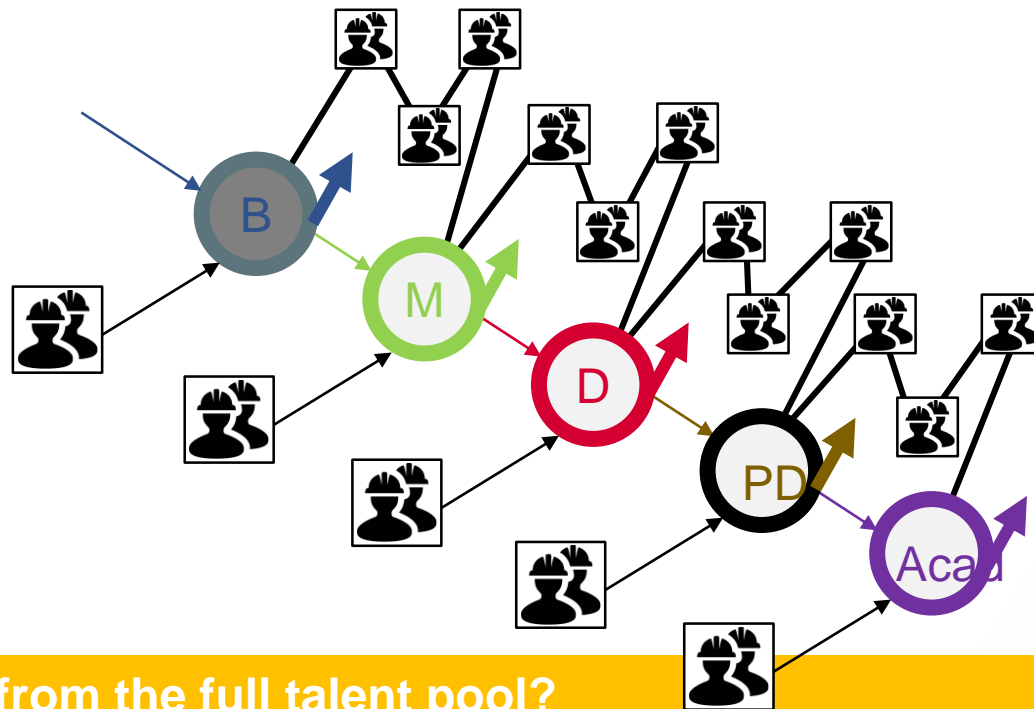


Figure 1 Number of postdocs in the US by major field 1987–2014. Data source: Survey of Doctorate Recipients (National Science Foundation, 2015). [Colour figure can be viewed at wileyonlinelibrary.com]



Researchers as a proportion of academic staff 2009
France, Germany, England, USA
 (befristet – fixed term)

Research Training: Creative critical autonomous intellectual risk takers

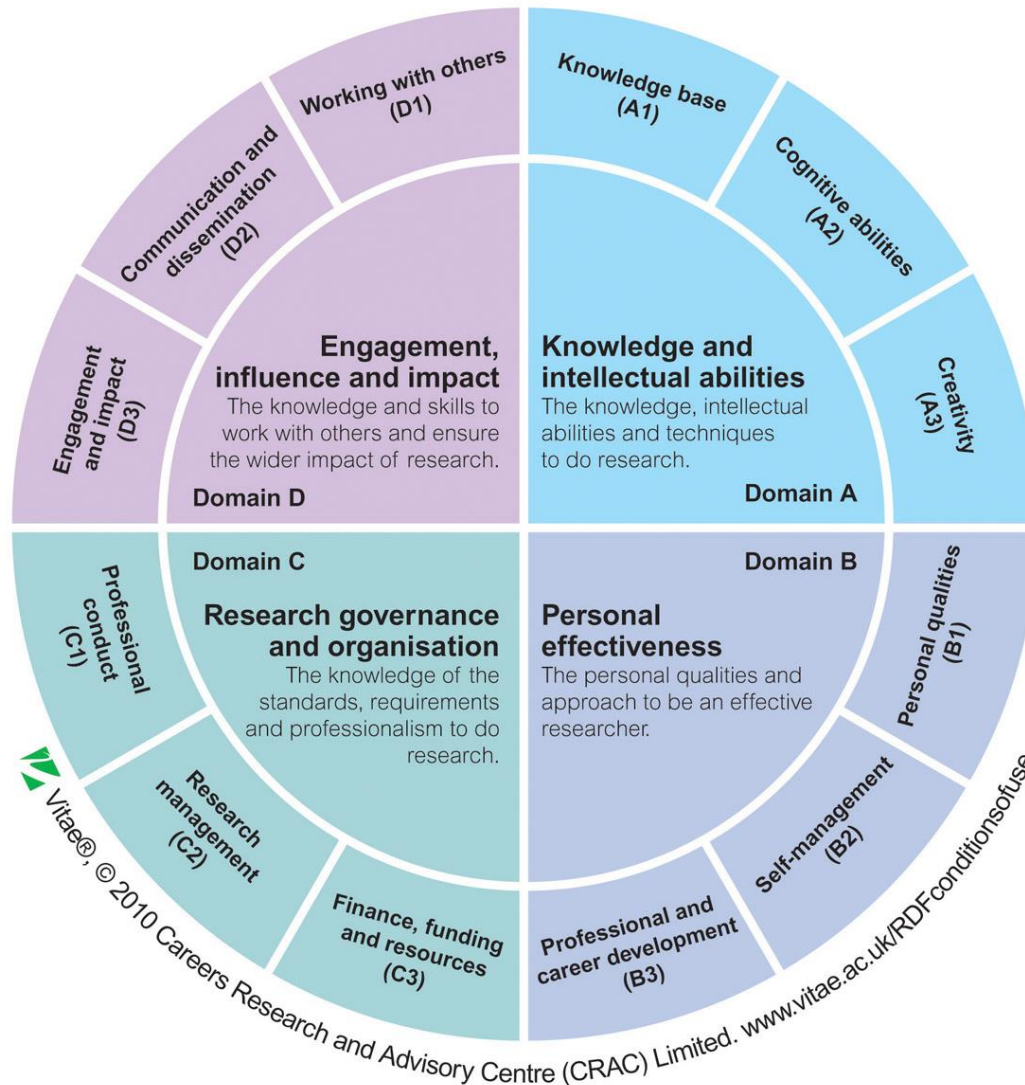


Are we recruiting from the full talent pool?

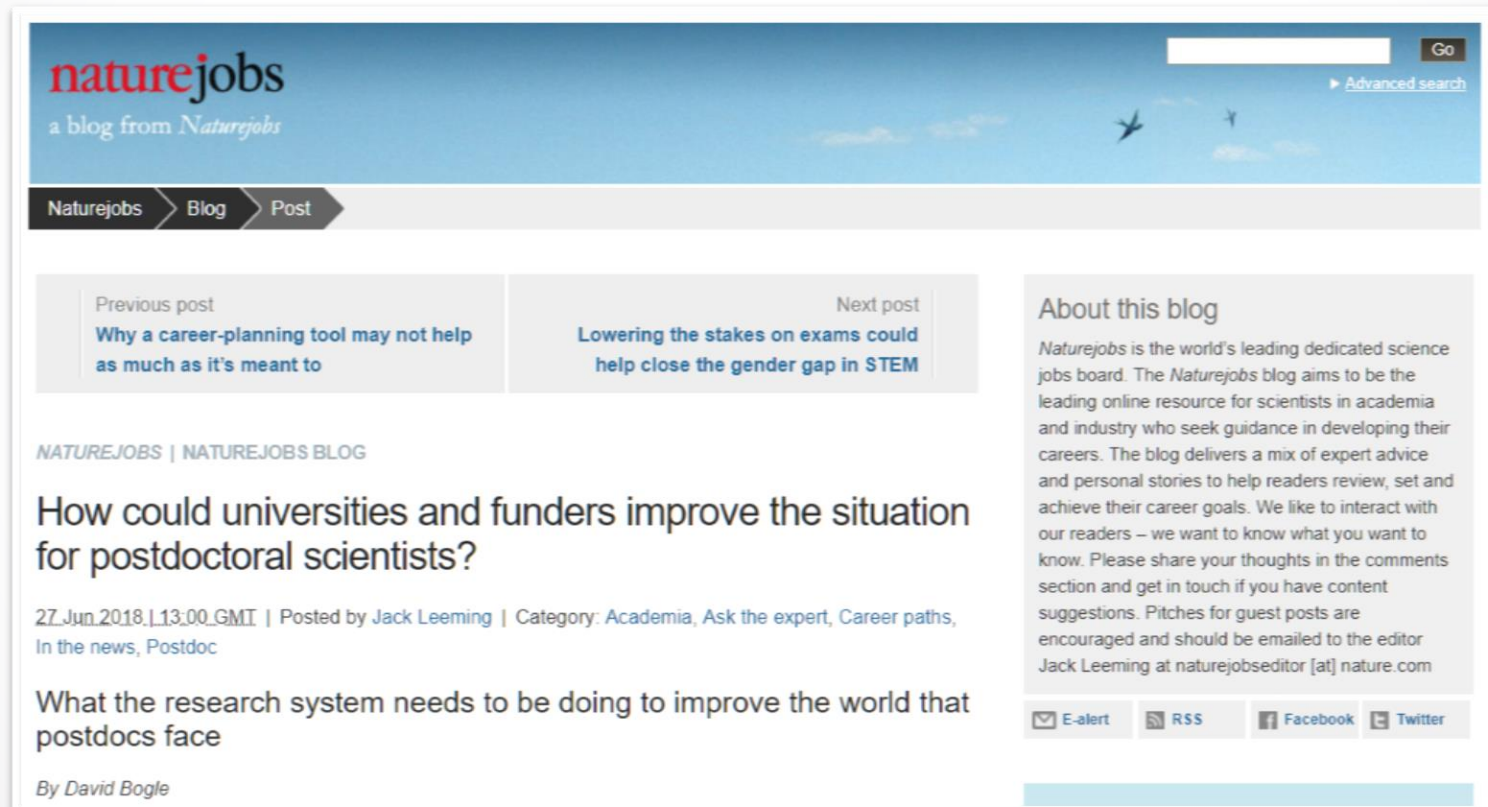
Are we adding expertise, experience and skills at each stage?

Are we adding Expertise at each stage?

UK Researcher Development Framework



Skills to be acquired as postdoc



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How could universities and funders improve the situation for postdoctoral scientists?

27 Jun 2018, 13:00 GMT | Posted by [Jack Leeming](#) | Category: [Academia](#), [Ask the expert](#), [Career paths](#), [In the news](#), [Postdoc](#)

What the research system needs to be doing to improve the world that postdocs face

By *David Bogle*

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<http://blogs.nature.com/naturejobs/2018/06/27/how-could-universities-and-funders-improve-the-situation-for-postdoctoral-scientists/#/>

Some Challenges for the Early Career Researcher environment

- Work/life balance – how can we make the postdoctoral stage more attractive as a career or career step?
- How can the system give more security? Or give more clarity on prospects?
- How can we give better careers support and clearer pathways to different careers?
- How can we allow them more independence in their research and in their personal development?
- How can we ensure a more diverse researcher population?
- Research culture – can it be more collaborative and less (hyper-)competitive?

Opportunities

- Clearer career pathways and role models (& data)
- Working more closely with private sector
 - greater awareness of skills and of opportunities
- Greater diversity in recruitment
- Focus on well being and research culture
- Training for research & innovation
- ‘Advanced’ skills development



What good practice in postdoctoral researcher development can you tell us about?

skills development

careers advice

developing independence

networking

...

Discuss which of these aspects would make an outstanding research training environment to prepare researchers for a wide range of roles academic and non-academic)?

Thanks for your participation

Potential System Models

- Fewer researchers (less money)
- Fewer postdocs but more technicians
- More redeployment within Universities – longer career paths
- Trained to innovate in more diverse career paths
 - Great Research, Great Skills, Great Career Move, Great Time!

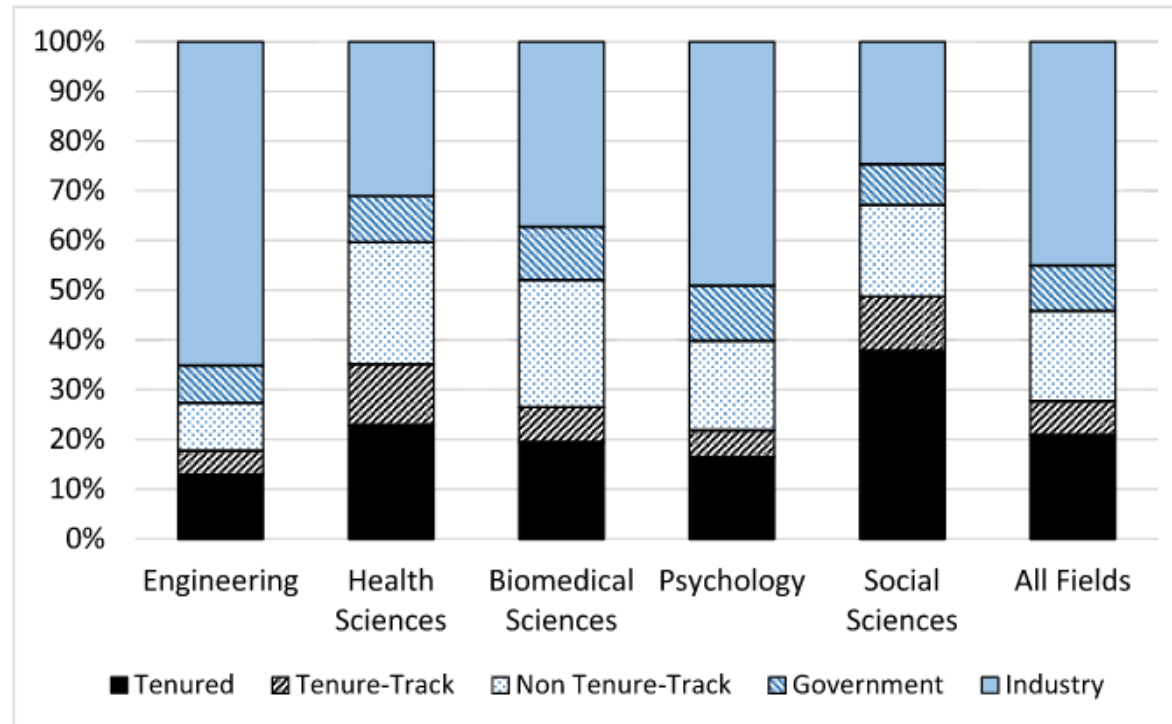


Figure 2 Employer sector of PhD holders from US institutions. Source: authors' estimation from the Survey of Doctorate Recipients 2013. [Colour figure can be viewed at wileyonlinelibrary.com]

Concordat for the Career Development of Researchers

- Environment and Culture – healthy working environment
- Employment – good employment conditions
- Professional and Career Development – adaptable and flexible

Concordat Review (2018)

- Developing researcher independence/**identity**
 - 20% of time allocated for developing independent skills – **10 days training** (Training, independent research, teaching, supervising, consultancy...)
- A national strategic approach to developing researchers for the innovation economy – led by UKRI. **Destination data is needed**
- Key outcome of research investment is PEOPLE as well as papers/patents/data.