

Submission by the Daphne Jackson Trust to the House of Lords Science and Technology Committee inquiry into the UK's research and innovation system and its ability to deliver the Government's ambition for the UK to be a "science superpower".

The Daphne Jackson Trust is the UK's leading organisation dedicated to realising the potential of returners to research careers following a career break of two years or more taken for a family, caring or health reason. The Trust was established in 1992 in memory of Professor Daphne Jackson – the UK's first female Professor of Physics.

The Trust offers Fellowships across all fields of research in universities, research institutions and industry across the UK and Republic of Ireland. It has supported over 440 individuals to return to research careers. Up to 25 new Fellowships are awarded each year, over 60 are currently in place with our partner institutions.

For our response, we encourage Committee to consider an additional question to those posed in the call for evidence:

What does a modern research workforce look like and how can the UK's research and innovation system welcome researchers from all backgrounds?

The research workforce is crucial to delivering the Government's ambition for the UK to be a "science superpower". Without it, UK R&D would cease to exist. However, the environment in which researchers work needs modernisation:

- The current prevalence of fixed-term research contracts combined with current research assessment criteria being heavily focussed on cumulated research outputs and impacts does not create a supportive sectoral environment, particularly for early career researchers.
- Research culture and the way that researchers are assessed (and rewarded) is heavily based on flawed (and to some extent limited) metrics.
- Researchers that do not follow typical career paths face enormous challenges that lead to many leaving the profession entirely. This represents a huge knowledge, skills and talent loss that is incompatible with the UK being a "science superpower". Excellent researchers that work part-time, and those who are unable to relocate (both nationally and internationally) for subsequent jobs to further their career face significant barriers that can prevent them from fulfilling their potential.

Specifically in relation to the latter point, the focus of the Daphne Jackson Trust is on the challenges faced by returners to research careers after a break, predominantly within higher education.

Researchers, on occasion, are forced to step away from their careers, as is the case for workers in any other sector. This could be down to health problems, to provide care for a relative or to raise a family. In research, individuals that are forced to step away can quickly find themselves lagging their peers in their knowledge, skills and training. When seeking to return to work, they often struggle to find research-based employment, being perceived as 'behind the curve' and less competitive. This leads to many researchers leaving their preferred profession entirely or forced to take jobs outside of their area of expertise and skill level.

This issue impacts significantly (though not exclusively) on women, who often find themselves taking a career break to raise a family or to care for a relative. Highly trained researchers that do not return to their careers are a substantial loss to UK PLC. Notwithstanding the moral arguments for addressing this, the economic benefit of solving the professional women career break penalty is calculated as providing an additional £1.7bn to the country's economic output¹.

Returning individuals to research careers is complex. Individuals require more than a 'return to work' meeting with their manager. Instead, they often need a longer and in-depth immersion in the area of knowledge in which they previously operated. Training is required to refresh, refine and develop existing technical skills and learn new techniques and technologies. It also takes time to accumulate more recent research outputs and scientific impacts. This creates significant inequity for researchers with career breaks for simply dealing with life events that may have been beyond their control.

Daphne Jackson Fellowships offer a vital route to return to a research career after a break. Without these Fellowships the inequity returners to research face would be further exacerbated, and the majority would be lost to the sector. Additional support is needed to prevent an exodus of knowledge, skills and experience from the sector. The convergence of overarching issues such as the post-Covid focus of the UK economy, the post-Brexit R&D sector, the goals of the Government's Industrial Strategy and the wider appetite for culture change offers a unique opportunity for Government to identify mechanisms to leverage and scale up initiatives that return more researchers to their careers after a break.

The Daphne Jackson Trust recommends that specific consideration could be given to the following:

1. Increased Government funding and support for existing schemes that return researchers to careers, with the appropriate Minister(s) and Department(s)

¹ <https://www.pwc.co.uk/economic-services/women-returners/pwc-research-women-returners-nov-2016.pdf>

championing the cause of research returners, codifying best practice, promoting initiatives that encourage sustained change in organisations that employ researchers, awarding success and identifying high profile champions.

2. Bring forward legislation to promote part-time and flexible working in research. This recommendation is more generally endorsed by the Women and Work All Party Parliamentary Group². Work-place policies should be developed with employees in mind whilst not compromising the level and quality of the individual role that a flexible arrangement might involve.
3. Specific support should be made available for those who are less likely to be in research-based employment. This includes women from minoritized backgrounds and women with children and single parents (particularly single mothers). This is not just about bringing these groups back to paid work, rather, it is about rethinking the unpaid care work they do and recalibrating how such work is valued. Publicly provided or subsidised early childhood education and care is a key facilitator of parents' employment. The accessibility and cost of these services is crucial, particularly for low income families. Government should do more to provide services such as these and compensate parents through voucher schemes to increase affordability.
4. Promote uptake of employment leave to facilitate home and work commitments. Family leave, in all its different configurations such as length, level of pay, eligibility and flexibility can both facilitate and hinder parents' employment. New types of leave such as carers leave could provide a vital route for researchers to care for relatives while ensuring their career is there for them on their return. Policy makers should clarify their expectations around employment leave and introduce a system of employer monitoring and reporting to ensure fair and equitable uptake.
5. Government should make it easier to diversify research career pathways and increase opportunities for researchers outside of academia through 'career diversification Fellowships'. This would benefit returners that may not want to return to academia but utilise their research skills in other sectors. Greater collaboration and cohesion with industry and the charity sector, with researchers interchanging roles between them, should be seen as normal and complement the explicitly stated goals of the Government's Research and Development Roadmap. Such schemes need Government funding and championing.

Finally, the impact of global drivers on employment - technological change, the green economy, digital skills, the aging population, climate change – coupled with the allied impetus for greater international collaboration will create new opportunities and a truly interdisciplinary research workforce. All of us within the research sector must work together, with Government, to ensure that the UK is positioned to maximise its contribution to benefit from such opportunities and truly become a "science superpower".

² <https://connectpa.co.uk/wp-content/uploads/2021/02/Women-and-work-Annual-report-2020.pdf>