

## 2013 Australian Postdoctoral Reference Survey Summary

### Enhancing planning, development and communication

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#### Summary

Within the research community, post-PhD career plans can include positions in academia, industry, and government agencies. More commonly, graduates – particularly women – are moving into careers all together outside research (e.g. as patent attorneys).

A recent pilot survey conducted by the [Australian Early- and Mid-Career Researcher forum](#) of the [Australian Academy of Science](#), shows that postdoctoral researchers (PDRs) are passionate about their work and most want to stay in research for the remainder of their careers.

The three most common requests by PDR survey respondents were for help to:

- 1) develop a career plan;
- 2) increase professional development (through external and internal schemes); and,
- 3) enhance outreach and science communication outputs.

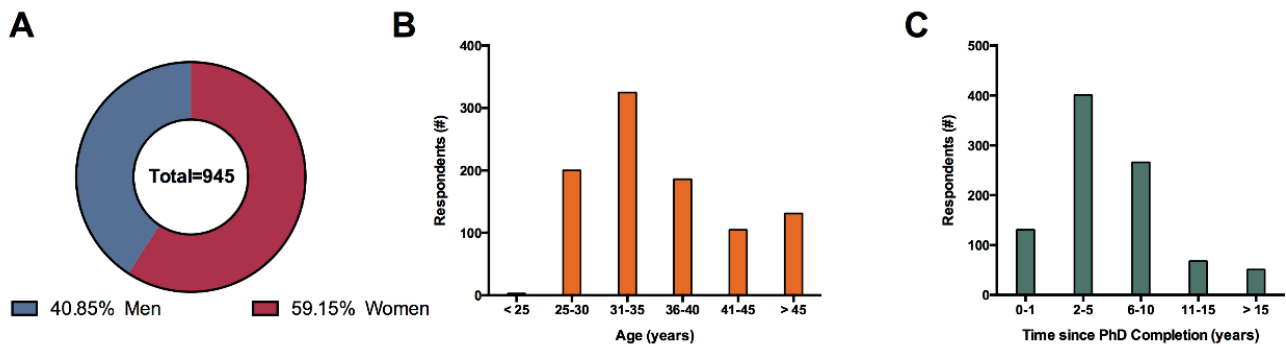
#### Background

From October to December 2013, the Australian Early- and Mid-Career Researcher forum (the forum) ran a pilot program to survey postdoctoral researchers (PDRs) across the country. In the process of pulling together a collection of policies from across the country that have been shown to support the career pathway of PDRs for the [Best Practices for Postdoctoral Progress](#) document, the forum realised little was known about the environment for Australian PDRs, in contrast to work done in the USA (for both [PDRs](#) and [supervisors](#)) and the UK (again, for [supervisors](#) and [researchers](#)). A pilot survey was launched in 2013, and building from the data in that survey the Forum has prepared a modified survey for 2014. The 2014 Australian Postdoctoral Reference Survey will run from November 2014 to 31 January 2015.

## Results

### Demographics

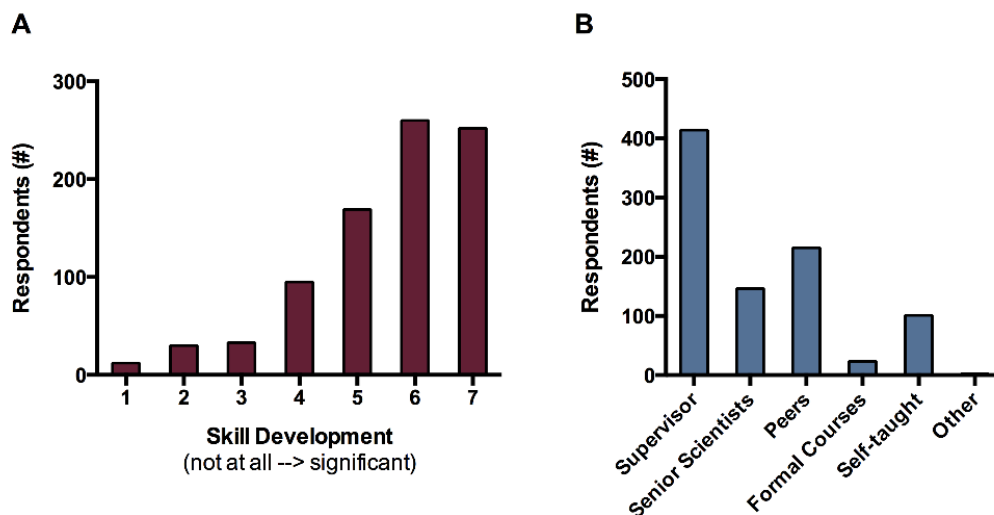
In total, 953 respondents participated in the pilot study. The gender balance was fairly equivalent, with 1.4 women:men responding (Figure 1A). 55% were age 25–35, and 75% were age 25–40 (Figure 1B); and, 87% were within 10 years of their PhD conferral (Figure 1C).



**Figure 1.** An overview of survey respondents demographics including gender (A), age (B), and the time since their PhD was conferred (C).

### Training

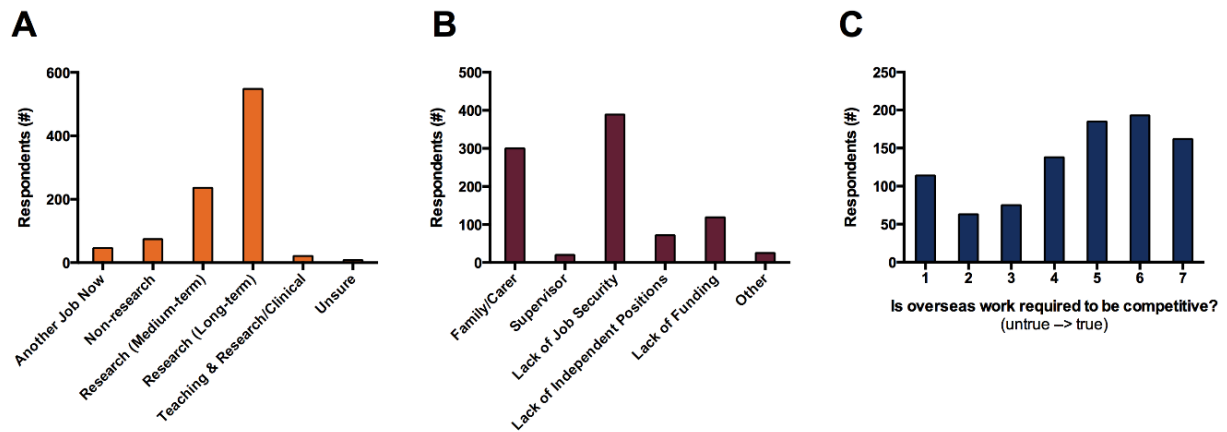
Supervisors (49%) and peers (24%) were the major sources of skill development for PDRs (Figure 2A). Further, 49% reported these new skills were developed with the PDRs supervisor and an additional 24% with their peers (Figure 2B). This emphasises the need for a strong research culture to support the development of technical expertise for PDRs.



**Figure 2.** An assessment of the degree to which technical skills were developed during a postdoctoral term (A), and the main route of new skill development (B).

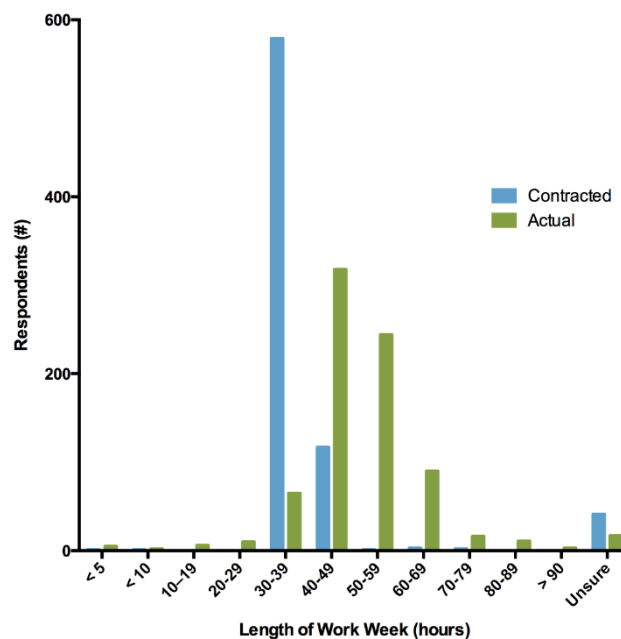
## Expectations

For 59% of the respondents, staying in research in the long term is their career goal; another 25% list this as their medium-term goal (Figure 3A). The top two reasons for leaving research include a lack of job security (42%) and family or carer obligations (32%). There is very little difference between men (32%) and women (36%) respondents with respect to family or carer responsibilities (Figure 3B). Overseas work is perceived as a neutral or strongly desired feature (a score of 4–7) for promotion and funding opportunities by 73% of respondents (Figure 3C).



**Figure 3.** Expectations for PDR terms. Career goals (A), reasons to leave a career in research (B), and whether overseas work is seen as a requirement to be competitive for promotion and funding opportunities (C).

Although 77% of respondents were contracted to work 30–39 hours/week, 82% report working 40–69 hours/week (Figure 4). We note the [Australian Government Fair Work Ombudsman](#) mandates that a full-time employee cannot work in excess of an average of 38 hours a week.



**Figure 4.** The average length of a work week for Australian PDRs. 77% were contracted to work 30–39 hours/week, and 82% report actually working 40–69 hours/week.

## Future directions

The pilot survey provided a comprehensive overview of the environment for PDRs in Australia. In addition to some valuable pieces of information, as outlined above, it emphasised the need for a more refined survey to better assess the questions we posed. Specifically, we have redesigned the survey with an eye towards statistics; revised the open-ended questions; and, obtained ethics clearance to more widely disseminate the results.

In order to publish our work and discuss the survey results in more detail, an important next step is ethics approval, which has been granted by The University of Queensland. This will allow us to reissue the survey, and prepare a report for publication in a peer-reviewed journal, further highlighting the importance of this item for government, academic, and industry stakeholders.

## For more information

Contact the [EMCR Forum](#), sign up to the [EMCR List](#) or take the [2014 Postdoctoral Reference Survey](#).

## Acknowledgements

We are grateful to Science Pathways 2013 delegates and the members of the Forum for their input, and to all respondents to the survey. Dr James Tickner (CSIRO) was a critical contributor to the development of the PDR survey concept and questions, and co-authored the Best Practices paper from which the survey concept arose. We also appreciate the support of Dr Camille Couralet, EMCR Policy Officer at the Australian Academy of Science, and Professor Les Field, Secretary for Science Policy at the Australian Academy of Science.

## 2013 Forum Members

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Dr Andrew Siebel (Deputy Chair), Baker IDI Heart & Diabetes Institute

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