

University of Wollongong Submission

The 2008 Parliamentary Inquiry into Research Training and Research Workforce Issues in Australian Universities

The University of Wollongong (UOW), as a research-intensive tertiary institution, considers the research training of Higher Degree Research (HDR) students and postdoctoral fellows to be an important part of our core contribution to the economic, scientific and cultural life of Australia. We currently have over 1,100 HDR students enrolled at UOW and typically graduate 120-170 PhD and Masters (Research) students annually. The gradual deterioration of research funding in universities over the past 10 years has had a significant impact on the quality of research training. Thus, we congratulate Minister Carr and the House of Representatives Standing Committee on Industry, Science and Innovation on their decision to review the area of research training in parallel with their review of the National Innovation System (NIS), as it will be the researchers trained at our universities today who will drive the success of the NIS in the future.

The nature and meaning of higher research degrees, especially the PhD, has changed significantly over the past 20 years, with many more people finding research degrees valuable for non-academic career paths. It is generally recognised that people who successfully complete a PhD have achieved a depth of understanding, analysis and problem solving in their field and can apply such skills to novel issues, both inside and outside of academia. These are clearly critical skills needed to address the challenges facing our country and the globe. We have every expectation that PhD-trained individuals will be at the forefront of future policy, technological and social solutions to pressing problems. In this submission we provide brief comments and recommendations related to three areas: Scholarships, Career Opportunity and International Engagement

Scholarships

A large proportion of Australian HDR students hold scholarships awarded through the Commonwealth Government APA (Australian Postgraduate Award) Scheme, the ARC as APA-Industry Awards via the Linkage Program, or the Universities themselves. The APA stipend is not taxed and has gradually risen over the last 10 years, but has not kept pace with rising costs of living; the annual allocation (\$20,007) now sits at the Melbourne Institute's Henderson Poverty Line. Even without identifying a specific poverty threshold, it is obvious that research students have a difficult time making ends meet—most need to secure additional paid work several days per week to afford living expenses. This additional load has serious implications for the advancement and the extent of their engagement in their PhD research. The APA is one of most competitive scholarships generally available to Australian students, requiring achievement of an Honours I degree, yet its stipend is ca. \$5 K less than the ARC APA-Industry award

and typically lower than scholarships available through CRCs and other research networks. The result is that many excellent students do not consider continuing study and research as viable options.

R1: We strongly recommend that the APA stipend be increased and be made consistent with the ARC APA-I

The current APA Scholarship is for 3 years with a possible extension of 6 months. The implied requirement of completing a PhD in 3 years is unreasonable and, in fact, rarely achieved (Australian average completion time is approximately 4.5 years). Further, it is far less than the normative time recommended in most European and North American PhD programs (4-6 years). Australian students are therefore disadvantaged when comparing PhD programs internationally. Our truncated 3 year PhDs, without significant coursework to enhance background knowledge, significantly reduces the depth and independence a student is able to develop and places undue financial and emotional stress on them.

R2: We strongly recommend that the normative time for a PhD degree and the APA stipend be increased to 4 years with an option of extension to 4.5 years.

Much of the Australian research output in terms of publications, discoveries, patents and technology transfer arises from the research work of HDR students. Yet, our ability to ensure that this output is made generally available is inhibited by the counterproductive practise of de-enrolling an HDR student as soon as they submit their thesis. This results in students entering a “no-man’s-land” while waiting for examiners’ deliberations on their work; they typically must find paid work to survive and thus cannot devote time to the preparation of publications or presentations of their findings. Their effective removal from the academic community occurs at a time when they need that engagement most. This is particularly problematic for international students whose visas terminate with their enrolment.

R3: We suggest that HDR students remain nominally enrolled for a period of 6 months after submission of their thesis and that APA and APA-I awards automatically extend past submission of the thesis to completion of the thesis when the period is within the 4.5 year limit.

Finally, we recognise that research students in virtually all fields of investigation require additional resources to conduct their research effectively. This may include laboratory consumables, small equipment, research-related travel, international research visits, software licenses, data access etc. In the current funding regime, this “extra” funding is often not readily available. To ensure high quality outcomes and competitive research capacity, our HDR Scholarship students should all have access to some minimal level of support. In fact, the ARC has recognised this essential requirement and embedded such support in their APA-I Scholarship (\$5K/year).

R4: We recommend that research support funds be attached to all APA Scholarships. We suggest an amount of \$5k/year is appropriate.

Career Opportunities

Globally the academic population is becoming older, with many Australian universities having more than 60% of academic staff over 45 years. Succession planning for university staff must include maintaining and growing research capacity of new recruits. However, the career opportunities that allow young PhD students to develop their research potential are very limited. Australian postdoctoral fellowships (APD for Discovery Projects and APD-Industry for Linkage Projects and NHMRC training fellowships) represent an important entry level funding opportunity through which a young academic might build their research and their track record. Only about 140-150 ARC fellowships (with only about 30 being APD-I awards) are funded each year and competition is intense. In addition, proven research experience and a track record of high quality publications are becoming the normal expectation for entry level academic positions. With an increased demand for young replacements as older academics retire, it is apparent that the pool is limited and the current funding model does not provide effective sustainability.

R5: We recommend that the Department of Innovation, Industry, Science and Research (DIISR) review the need for postdoctoral training and develop a new scheme to create postdoctoral fellowship opportunities that are not necessarily coupled to ARC DP and LP and NHMRC project grants.

International Engagement

Research is an international endeavour and Australian researchers are very good at leveraging opportunities through collaboration, both nationally and internationally. Although there has been some recognition and encouragement of international collaboration in recent years, there are still many difficulties for international students and academic visitors. Many of these involve the difficulties around obtaining visas, particularly for short visits or academic exchanges. For example, international research students visiting Australian counterparts for purposes of research collaboration must apply for a visa under an “Occupational Trainee Visa- 442” which has unrealistic and difficult to meet requirements. DIISR could assist dramatically in helping to simplify processes and clarify visa requirements for educational and research exchange.

R6: We recommend that DIISR establish a liaison with the Department of Immigration and Citizenship (DIaC) to rationalise and simplify visa issues for international students and academic visitors.

Given the skill shortages in certain discipline areas (e.g. geoscience, information and computer technologies (ICT), and engineering), offering APAs to well qualified international students in high demand areas could be a smart decision. However, this needs to be balanced against ensuring that domestic students are not disadvantaged in their access to scholarship opportunities. Universities are seeing greatly increased interest in postgraduate scholarships from international students, but no decline in domestic student interest. Given this level of interest and the importance of this population in driving discovery, ideas and innovation, we recommend that number of APAs available be increased by 50%.

R7: We recommend making APAs available to international students as APA-Is have been opened to international applicants starting in 2009 Further, to meet the

demands of domestic and international students, we recommend that the number of APAs are increased by 50%.

Finally, opportunities to attend conferences and visit international research centres is an integral part of becoming a modern researcher. However, funds to support this aspect of the HDR experience are very limited. We propose a “new” allocation of funds specifically identified for Research Student International Engagement be made available to universities and research institutes based on metrics associated with their research activity and their HDR training load.

R8: We recommend the establishment of a Research Student International Engagement Fund to promote and support international research opportunities for HDR students.

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