

EDITH COWAN UNIVERSITY
Response to the Inquiry into
Research Training and Research Workforce Issues
in Australian Universities

May 2008

Summary of Recommendations

1. that the stipends payable under Australian Postgraduate Awards and similar awards be increased from \$20,007 per annum to at least \$25,000 per annum.
2. that funds be provided to restore infrastructure block funding schemes to the percentage block grant per dollar of research activity at the level applying in the year 2000 and that, as a minimum, this level be maintained in current and future infrastructure funding schemes.
3. that, while recognising the need for critical mass, funding policies support excellent research wherever it occurs.
4. that the opportunities available to early-career researchers through Australian Postdoctoral Fellowships and similar schemes be reviewed, with a view to increasing the number of awards and the benefits provided by them.
5. that the Commonwealth Government investigate means of enhancing international collaborations in research training, possibly using the French Government's Cotutelle scheme as a model.
6. that the number of International Postgraduate Research Scholarships be increased.
7. that the Commonwealth Government facilitate the issuing of visas to international research specialists.
8. that the Committee of Inquiry address in its recommendations the effect on Australia's research capability of the ageing academic workforce.

Edith Cowan University

Edith Cowan University (ECU) is Western Australia's second largest university and one of the country's larger universities. Its 23,000 students include more than 3,000 students originating from more than 90 countries. As befitting a contemporary university, it provides high quality tertiary education and prides itself on being supportive, flexible and relevant. Its undergraduate courses have a strong focus on providing real life solutions to real life problems and practical projects.

ECU is committed to undertaking high quality research which has strong social, economic, environmental and cultural impact. To that end, the University has developed an

interdisciplinary research profile that engages strategically with business, government and the community to deliver applied solutions to present challenges and create innovative opportunities through new thinking and discovery.

ECU has undertaken research training since its inception as a university in 1991. It has a comprehensive research training program across all Faculties, and over recent years has awarded an average of 45 PhD and 33 research master's degrees per year. Research Training Scheme funds in 2008 total \$4.3 million, in addition to the support provided from the University's own resources.

This submission is arranged under the terms of reference for the review.

The contribution of research training programs to Australia's competitiveness in the areas of science, research and innovation

Australian universities continue to be the major provider of research training in the nation. Contrary to popular opinion, the majority of higher degree by research (HDR) students trained in universities, and especially Masters by research graduates, do not move in to academic positions but make a contribution to broader Government and private sector initiatives. It is important that society becomes aware of the benefit of having highly trained, innovative and critical thinkers participating in the broader economic and social setting.

Higher degree training is not an esoteric exercise purely for the benefit of the individual, and investments in higher degree training, through the higher education sector, remain a critical prerequisite for developing innovative thinkers for Australia.

The effectiveness of current Commonwealth research training schemes

The Commonwealth research training scheme provides a means for talented Australians to take up courses of higher degree study in a wide range of disciplines. Particularly commendable is the freedom that the current scheme provides for research topics.

The availability of funding through the Research Training Scheme and Australian Postgraduate Awards program leaves open space for blue-sky research despite other funding schemes for research increasingly advantaging research on areas of strategic interest, national priority, or industrial or societal benefit.

However, a decline in demand by domestic graduates for research training places, linked to the present strong employment environment and inadequate postgraduate stipends, would, if continued, lead to a medium-term shortage of skilled researchers within academic and other research institutions, particularly at early- and mid-career academic levels. This would have an impact on the capacity of existing research institutions to accommodate a future return in demand, since the capacity to maintain infrastructure and training capability would be reduced. The demand for research training supervisors may need to be met by recruiting researchers from overseas.

The adequacy of current research training schemes to support Australia's anticipated future requirements for tertiary-qualified professionals in a wide range of disciplines

Several factors present serious risks to the capacity for the research training schemes to meet future demand for tertiary-qualified professionals in a wide range of disciplines. A continuing decline in talented Australian students applying for research training places would be likely to result in a shortage of highly skilled graduates in the workplace in the medium term. It would lead also to an increasing shortage of skilled researchers within universities and other research institutions.

A second factor is the retention by the Commonwealth of a highly competitive funding model for universities. These models limit genuine cross-institutional collaboration, and introduce barriers to the optimal supervision of research students, especially those interested in exploring cross- and inter-disciplinary research topics on a multi-institutional basis.

Thirdly, the recent drive to differentiate some universities as 'research-intensive' has destabilised the research training experiences of some students in universities otherwise designated, as some academic staff members sought to reposition themselves in advance of the introduction of this arbitrary designation.

Finally, publicly funded research agencies (PFRAs) have increasingly been eligible to access competitive funding for research that was previously solely available to higher education researchers. This eligibility relaxation has not been matched by a commensurate increase in the quantum of research funds available, leading to greater competition for applied research funding. Also, because the higher education sector frequently uses research funding to employ research students in a part-time capacity, augmenting their research stipends, the eligibility of PFRAs lessens the support for HDR students.

The adequacy of training and support (including income support) available to research graduate students in Australia

The present strong employment environment is reducing the number of Australian graduates willing to pursue research at the current levels of scholarship/remuneration. While the availability of jobs and competitive salaries for graduates are positive factors, together with a net inflow of qualified people through skilled migration programs, the long term consequence will be a lessening in Australia's research capability.

ECU welcomes the doubling of the number of scholarships available for higher degree by research (HDR) students by 2012, as announced in the recent Commonwealth budget. However, stipends are no longer competitive (particularly in Western Australia, Queensland and the Northern Territory). Data provided by the Council of Australian Postgraduate Associations suggest that by the end of 2008, the Australian Postgraduate Award (APA) stipend will drop below the poverty line. The 2006 Student Finances Survey found that full-time HDR students had mean annual expenses of \$21,610, while the APA annual stipend was \$19,231 in 2006.¹

¹ Universities Australia Media Release 30 April 2008

Recommendation 1: that the stipends payable under Australian Postgraduate Awards and similar awards be increased \$20,007 per annum to at least \$25,000 per annum.

Factors for graduates that determine pursuit of a career in research

Academic careers provide many benefits and attractions for graduates (e.g. intellectual challenge; collegiality; student interaction; task variety; flexible hours; mentoring). However, reduced funding of universities per student over at least the last decade has led to significantly increased teaching loads and class sizes, and other pressures. This has a particularly adverse effect on early career researchers who need the opportunity and time to further develop and apply their research skills.

A perception that a university research career is difficult to establish because of sustained heavy teaching and other duties could well act as a disincentive for graduates. ECU funds an Early Career Researcher Scheme, and many universities have similar schemes, but these depend on adequate funding. As well as general funding pressures on universities, research block funding allocations from the Commonwealth (Research Training Scheme, Institutional Grants Scheme, Research Infrastructure Block Grants) have failed to keep pace with the growth in university research activity.

Recommendation 2: that funds be provided to restore infrastructure block funding schemes to the percentage block grant per dollar of research activity at the level applying in the year 2000 and that, as a minimum, this level be maintained in current and future infrastructure funding schemes.

Opportunities for career advancement for research graduates and staff

The opportunities for career advancement of research staff are affected by a multiplicity of factors. However, access to research students and research funding are key components. Again, therefore, factors influencing the attraction of students affect career advancement. Similarly, policies that seek to concentrate research effort in a small number of universities will have the effect of narrowing the opportunities for research careers.

Recommendation 3: that, while recognising the need for critical mass, funding policies support excellent research wherever it occurs.

ECU commends the announcement in the Commonwealth budget of the Future Fellowships scheme, which will provide four-year fellowships for 1,000 mid-career researchers. It is also vital to retain the younger generation of excellent researchers. This would be best achieved by increasing support to the ARC and equivalent fellowship schemes, in the form of more fellowships rather than higher salaries. Similarly, an allocation of operational support with each fellowship would be very attractive to high quality researchers. This could be in the form of operational funds or an associated postgraduate scholarship tied to Fellowships.

Recommendation 4: that the opportunities available to early-career researchers through Australian Postdoctoral Fellowships and similar schemes be reviewed, with a view to increasing the number of awards and the benefits provided by them.

It is not yet clear whether the UWA vs Gray inventions/intellectual property Federal Court ruling will change the landscape for the opportunity of academics to benefit from IP developed during their employment in the higher education sector or publicly-funded research agencies. There may be a change in researchers' interest in commercialising their research, which may affect the employment attraction and retention landscape.

Factors determining pursuit of research opportunities overseas

More strategic international research collaborations should be promoted. Incentives should be provided by the Government for strategic international collaborations which produce HDR completions and help promote research, including research in developing countries. The main aim should not be to maximise the number of fee-paying international students.

Cotutelle grants are a good example of international collaborations enhancing research training. Cotutelle students are PhD students who have their doctoral studies supervised jointly by academics from an Australian university and a French university. The Embassy of France offers travel grants to students in the program. A joint degree is awarded by the two institutions.

Recommendation 5: that the Commonwealth Government investigate means of enhancing international collaborations in research training, possibly using the French Government's Cotutelle scheme as a model.

Australia's ability to compete internationally for high quality researchers

In contrast to the trend in domestic demand for research training, there continues to be a high demand for places among international students. It would be prudent for the universities and Government to facilitate the movement of suitably qualified overseas applicants into the research training system in order to maintain the research capacity during the period of low domestic demand for places.

An area of inadequacy is the number of International Postgraduate Research Scholarships (IPRS). While it is clearly in the nation's interest to focus research training on Australian citizens, recent move to increase the number of highly skilled migrants reflects the shortfall of highly qualified personnel in the broad workforce. Making more IPRS available would help to attract qualified researchers from overseas and provide a pipeline effect of skilled researchers for the broader workforce.

Recommendation 6: that the number of International Postgraduate Research Scholarships be increased.

There are often challenges in recruiting research specialists in international recruitment searches. The process of finding them and attracting them to Australia is difficult but worthwhile. Visa difficulties often cause delays. With the current employment situation, visa processing times need to be dramatically shortened. We are no longer in the 1990s where there were plenty of Australians for every skilled or specialist job. The Commonwealth should see this time as a window of opportunity to recruit into Australia a strong group of capable researchers and technicians who will serve the country well and advance business, community and government interests in the medium and long terms.

Recommendation 7: that the Commonwealth Government facilitate the issuing of visas to international research specialists.

Whether Australia's academic workforce is ageing, and the impact this may have on Australia's research capacity

Australia's academic workforce is ageing. In 1997, 32.4% of full-time and fractional full-time academic staff were above the age of 50; in 2006 the percentage was 39.9%.²

The large number of research-active staff in universities who will retire in the next decade, together with the declining numbers of talented Australian students applying for research training places, poses a significant threat to the country's research capability.

Recommendation 8: that the Committee of Inquiry address in its recommendations the effect on Australia's research capability of the ageing academic workforce.

**Edith Cowan University
100 Joondalup Drive
JOONDALUP WA 6027**

Contact:

Dr Marcia Taylor
Director, Research and Innovation
T: (08) 6304 5401
F: (08) 6304 5044
Email: m.taylor@ecu.edu.au

30 May 2008

² DEST Selected Higher Education Staff Statistics 1997 and 2006