

Submission from Charles Darwin University

**Inquiry into Research Training and Research Workforce Issues  
in Australian Universities**

30 May 2008

The following comments are arranged as per the Terms of Reference provided:

**1. The contribution that Australian universities make to research in Australia, including:**

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

High quality research training is a prerequisite for a competitive knowledge and innovation system. A significant percentage of research undertaken in Australia is carried out by research students who are also generating a significant percentage of the nation's research outputs and impacts. Research training usually entails working in a focussed research team of more experienced academics, which requires that established academics have the time and resources to carry out research and assist research students (see the CDU Submission to the Review of the National Innovation System; section on Universities, a, c).

*The effectiveness of current Commonwealth research training schemes;*

Current formula based schemes have the effect of concentrating research training in the larger, more established universities. However, many of the significant issues we face in today's society will be equally well, and in some cases better served, by increased concentration of relevant research expertise in regional areas.

In addition, the effectiveness of the research training scheme could be enhanced if the places were fully funded, ensuring sufficient access to human and other resources and a high quality research training experience for as many students as possible. Stipend scholarships also need to increase in value to ease the financial burden on students and increase the likelihood of completion. Data for the period 2005-2007 shows that almost 28% of voluntary course discontinuations at CDU were the result of employment and financial pressures.

The introduction of generic skills training in recent years has been positive but the extent and content of such training is variable across the sector, at least partly because it is occurring within the context of a funding scheme that is not meeting the full costs of research training. It would be very useful if further scoping of the needs of industry were performed nationwide.

The current practice of identifying a limited number of Fields of Education as High Cost with the majority identified as Low Cost is problematic. At CDU a significant percentage of students classified as Low Cost are undertaking their studies in remote communities of Australia and Asia and therefore incur costs equivalent to or greater than those incurred by a student classified as High Cost. For example, in Education about 60% and in Health Services Research about 90% of students at CDU are working remotely.

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

A significant limitation of the current research training scheme is that it is not possible to fund places for international students.

In discipline areas where domestic demand from prospective students is very low, and likely to remain so, it is critical that high quality international applicants be provided with access to the schemes. This will potentially enable high quality graduates to stay in Australia, an issue that is particularly important in region areas such as the NT

CDU has a strong and formal partnership with the NT Government that enables focussed research and research training of value in our region. Such partnerships in other jurisdictions could be of enormous complimentary value to the Commonwealth's activities.

**2. The challenges Australian universities face in training, recruiting and retaining high quality research graduates and staff, including, but not limited to:**

*Adequacy of training and support (including income support) available to research graduates in Australia;*

Training, mentoring and support schemes for new research graduates tend to be patchy. A fund targeted at best practice training and support for early career researchers could assist.

Commencing income for research graduates in universities is often lower than what can be commanded outside of academia and many choose to pursue the higher monetary rewards. In a number of disciplines the highest quality research graduates are specifically targeted and enticed by industry. Prestigious early career fellowships with a higher level of income and support than the standard postdoctoral salary would go some way to retaining the best graduates within the university system.

*Factors for graduates that determine pursuit of a career in research;*

Research Training Experience – a quality research training experience is more likely to foster positive thoughts about a career in research;

Achievement and Success – graduates whose research training resulted in outputs that have been or are able to be published and have societal impact may feel more confident about pursuing a career in research;

Opportunity – the availability of academic positions at the time the graduate is exploring career opportunities is clearly essential for the development of a research career;

Support and Networks - integration into a 'research community' with associated mentoring, skills development and support;

Personal fulfilment -- while this is subjective and difficult to quantify, it is likely to be enhanced through provision of good research training, stimulating and enriching support networks, opportunities to publish, and encouraging future career prospects.

*Opportunities for career advancement for research graduates and staff;*

There will always be opportunities for career advancement for the highest achievers, though it often requires the will to relocate in order to advance.

For those other than the highest achievers, opportunities for career advancement are more limited, particularly for the levels of Senior Lecturer/Senior Research Fellow and above.

*Factors determining pursuit of research opportunities overseas;*

Networks and opportunities -- relationships built with international research groups readily open up opportunities for visiting appointments and more permanent positions;

Infrastructure and critical mass -- many international research institutions and groups are well equipped and resourced and are able to offer the intellectual environment, access to a high level of infrastructure, and levels of support that can be difficult to match in Australia.

Remuneration -- can be significantly greater overseas.

*Australia's ability to compete internationally for high quality researchers;*

Issues mentioned above in relation to critical mass, access to infrastructure and remuneration are equally relevant to being competitive in attracting high quality researchers to Australia.

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

All indications are that Australia's academic workforce is ageing with a significant increase in retirements expected to occur over the coming decade. With demand for research training relatively flat over recent years this raises concerns about the nation's ability to meet the increased demand for high quality research graduates in the university sector. Providing greater incentives to international students to undertake research training in Australia, and stay here, would go some way to addressing the upcoming skills shortage in the sector.



Prof R.J. Wasson  
Deputy Vice Chancellor Research  
Charles Darwin University