29 May 2008

To: Ms Maria Vamvakinou
          Chair
          House of Representatives Industry, Science and Innovation Committee
          Parliament House
          CANBERRA ACT 2600
          Email: isi.reps@aph.gov.au

Dear Ms Vamvakinou

**Submission to Inquiry into research training and research workforce issues
in Australian universities**

The Australian Universities Quality Agency (AUQA) is the principal national quality
assurance agency in higher education with the responsibility of providing public
assurance of the quality of Australia's universities and other institutions of higher
education, and assisting in enhancing the academic quality of these institutions.

In 2007, AUQA completed its first cycle of audits of all Australian universities. AUQA is
now preparing thematic analyses of overall audit findings from Cycle 1 audits (2002–
2007) on a range of topics including research training.

To assist the Committee, this brief submission provides an overview of audit findings in
respect of research training in Australian universities. AUQA makes some further
comments on future quality assurance measures for research training and workforce
planning. The submission relates most directly to the references in the Committee's
inquiry to 'Adequacy of training and support available to research students in Australia'
and to the impact of an ageing academic workforce on research capacity.

The submission was prepared by AUQA audit director Dr Jeanette Baird, to whom any
questions may be addressed.

Yours sincerely

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Submission from AUQA

Adequacy of training and support available to research students in Australia

AUQA's Cycle 1 audit reports in respect of research training contain many commendations for improvements in practice, especially through the establishment of central graduate research schools responsible for managing and assisting research students. Commendations for graduate schools and for management of research training include the following statements:

> *AUQA commends [the University] for the improvements to the management of research training that are attendant on the establishment of the position of Dean of Graduate Studies, including the development of a strong relationship with the [University] Postgraduate Representative Association*

> *AUQA commends [the University] for its research training management system and its mentoring and support of PhD students*

> *AUQA commends the leadership provided by the [University] Graduate Research College, for the pivotal role it plays in developing the University's research profile, and maintaining appropriate levels of research training and support opportunities*

> *AUQA commends [the University] for the implementation of the Quality Assurance for Research Training (QART) process that provides a comprehensive framework for continuous improvement of its higher degree by research programs*

> *AUQA commends [the University] for its successful introduction of a Graduate School to oversee policy and administrative processes for higher degree students*

> *AUQA commends [the University] for the successful operation of the School of Graduate Studies, which plays an important role in achieving the University's strategies for research training, creates a welcoming and supportive environment for research postgraduate students and assists the professional development of research supervisors.*

Audit reports have also commended universities for improvements in the quality assurance of research supervision, for example: 'AUQA commends [the University] for its supervisor accreditation system which will focus on the continuous skill development of supervisors'.

Features of research supervision that are largely regarded as standard for Australian universities include: a register of academics who have been approved to supervise research students (and provision to de-register); training and professional development for research student supervisors; the use of more than one supervisor or a supervisory panel; regular progress reporting and closer monitoring by central committees of the progress being made by students. One university has been commended by AUQA for developing Research Learning Plans for research students, to assist them in reviewing their own learning, while the fIRST project of the Australian learning and Teaching Council aims to improve the pedagogy of research supervision.

A number of universities and university groups have developed programs to ensure that research students develop either the basic skills they will need as researchers or other

skills designed to better equip students for future careers in research or leadership. Some of these programs aim to develop the specific generic skills universities have identified for their research students.

Examples of such programs from recent reports and AUQA audits include: the Australian Technology Network's e-Grad School (Australia) and associated activities, such as the Graduate Certificate in Research Commercialisation and the Learning Employment Aptitudes Program (LEAP); the exPERTprogram at Monash University; the Leadership and Entrepreneurial Attributes Development Program at Swinburne University of Technology; the Graduate Entrepreneurship Program of the University of Adelaide; and the Integrated bridging Program for international research students, also at the University of Adelaide. AUQA considers there would be merit in universities undertaking systematic evaluations of the effectiveness and outcomes being achieved by these various initiatives. Programs to reduce attrition rates for research students should also be examined.

Cycle 1 audit reports also contain numerous affirmations and recommendations[1] on research training, indicating areas for improvement. While they address a broad range of issues including entry standards, grievances, student representation, intellectual property, and ethics clearance requirements, many recommendations are specific to the situation at the particular university.

More generally, audit findings discuss the intellectual climate for research students, an element that scores lower than others in Postgraduate Research Experience Questionnaire surveys. Audit reports contain some commentary on this, commending several universities for a positive climate for research but urging others to develop strategies to ensure a more vibrant intellectual climate for students, both locally and across the institution.

There are however two main areas of affirmations and recommendations that run broadly across the Australian university sector: supervision; and resources for research students.

Sixteen universities received affirmations or recommendations on research student supervision in AUQA's cycle 1 audit reports. Many of these addressed the need for universities to formalise the 'standard' practices mentioned above or to ensure these practices are implemented consistently and monitored for effectiveness. (Some of these practices were of course less well-established when the first AUQA audits were undertaken.) Examples are:

> *AUQA recommends that [the University] develop systems to support a robust process to monitor the training, experience and effectiveness of research higher degree supervisors, such as the development of a supervisor register and introduction of measures of the quality of supervision*

> *AUQA recommends that [the University] implement mandatory training for the supervisors of research higher degree students*

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[1] The most significant findings in AUQA audit reports are expressed as commendations, recommendations or affirmations. A recommendation refers to an area in need of attention. Where an area for improvement has already been identified by the auditee, with evidence, it is termed an 'affirmation'.

AUQA recommends that [the University] establish a system for ensuring that good practice in supervision, supervisor selection and professional development is embedded in policy and implemented consistently throughout the University

AUQA recommends that [the University] implement an ongoing training program for higher degree by research supervisors at all levels of experience and draw on resources available from external sources

AUQA recommends that criteria for registration as a supervisor of research students be made more precise, that registration be mandatory for supervisors, that adequate training and development opportunities be provided for existing and potential supervisors, and that criteria and procedures for de-registration be set down

AUQA recommends that [the University] make more publicly known the criteria for eligibility to become a postgraduate research student supervisor and that all new Associate and Principal supervisors be required to undertake appropriate training before being admitted to the Register.

Some but not all universities have a policy on resources for research students but even those that do are not always implementing their own policy consistently. At least fifteen individual audit reports made affirmations and recommendations on the adequacy of resources for research students. Examples are:

AUQA affirms the need for [the University] to implement a statement of minimum resources for research higher degree students as soon as possible

AUQA affirms [the University's] recognition of the need to consistently provide adequate resources and support for postgraduate research students across all discipline areas, and in line with the University's Support Guidelines for Postgraduate Students

AUQA recommends that [the University] review the minimum standards of support for postgraduate students, including induction, and that it implement effective systems for monitoring the equitable and reasonable implementation of these in a transparent way by Schools

AUQA recommends that [the University] ensure that its policy on the minimum resources to be provided to higher degree by research students is consistently implemented across all academic units

AUQA recommends that [the University] finalise its review of the minimum standards of support for HDR students and that it ensure that the resulting policy requirements are met throughout the University

AUQA recommends that [the University] review the adequacy of its resourcing of higher degree research students

AUQA recommends that [the University] ensure that its policy on the minimum resources to be provided to research by higher degree students be implemented by academic elements across all campuses.

The findings from AUQA's Cycle 1 audit reports suggest the main issues impacting on the quality of research training in Australian universities are infrastructural, in terms of both physical and human resources. AUQA encourages the inquiry to consider the need for additional general support for universities, not tied to a specific project or program, which would assist universities to improve the resources and intellectual climate for research in designated areas of research activity.

It is evident that the number of research students in some disciplines and in some universities is close to overloading the available supervisory capacity, raising further questions about the quality of the research environment for research training. Government funding regimes that encourage the enrolment of research students are likely to have played a role in producing this situation. AUQA urges the inquiry to consider incentives for universities to limit the enrolment of research students to areas of accepted research strength and adequate supervisory resources, as has been done already by some institutions.

AUQA recognises that people undertake research higher degrees for a number of reasons, including the desire for an academic career, a passionate interest in the subject, a more general enjoyment of learning, and a wish to upgrade professional qualifications. Whether all research students in a particular discipline expect or require the same level of access to university infrastructure (not including scholarship support which is rationed) and whether all research students should be affected in the same way by completion time requirements is a question that the inquiry may care to address. Whatever the outcome, however, each university should be required to make an explicit statement to each student of the actual resources that will be provided before the student enrols, as in the 2005 Framework for Best Practice in Doctoral Education in Australia of the Council of Australian Deans and Directors of Graduate Studies.

A recent focus by universities on completion times has improved the monitoring and tracking of student progress and in some cases has resulted in a more structured approach to doctoral training. The downside is the risk that more attention is paid to processes and output than to measuring the quality of research training and the impact of the theses that are produced.

For these reasons, recent AUQA audits have suggested some quality assurance improvements and endorsed some quality-related practices already found in a few universities. These improvements and good practices include:
- having examiners rate the quality of theses or otherwise benchmarking thesis examination outcomes
- monitoring the proportion of theses that are passed with no or only minor amendments
- assessing the impact of theses
- tracking the destination of research graduates.

As the Australian Council of Deans and Directors of Graduate Studies has noted elsewhere, comparative measurement of some of these outcomes requires consistent data collection across institutions, and some studies may be beyond the resources of a single university to implement. AUQA encourages the inquiry to consider the need for funding for national data sets and studies that more directly measure the quality of research training than current completions data and the Postgraduate Research Experience Questionnaire.

Whether Australia's academic workforce is ageing, and its impact on research capacity

Australian universities face a number of challenges in workforce management, including the balancing of continuing and sessional staff in their academic workforce and the level of investment required to recruit and retain outstanding research groups, many of which include scientific, technical and management staff as well as academics.

Studies by Professor Graeme Hugo and others show that the Australian academic workforce is ageing and there is a marked difference in the age profile of academics across all Australian universities. If there is to be a global competition for younger researchers, universities who already have a comparative shortage of younger Level A and Level B academics may lose out. These universities are likely to already have less flexibility than others to adjust their workforce profile, through factors of location and/or availability of resources.

AUQA notes as well that the increasing 'casualisation' of the academic workforce will affect overall research capacity within institutions. Australian universities are bound by the National Protocols for Higher Education Approval Processes to demonstrate 'a culture of sustained scholarship which informs teaching and learning in all fields in which courses are offered' and to undertake 'research that leads to the creation of new knowledge and original creative endeavour at least in those fields in which Research Masters and PhDs or equivalent Research Doctorates are offered'.

While not all academic staff are expected to be research-active in all Australian universities, the greater the number of academics who are engaged in research in a particular discipline area, the better an institution's capacity to provide the type of intellectual climate that supports research students and encourages undergraduates to develop an appreciation of research. Moreover, heads of school and other academic managers need to have a well-developed understanding of research if they are to effectively recruit younger academic staff whose duties include research.

AUQA observes that while selectivity and concentration in research are important, not all researchers will be 'stars'. The nation's overall research capacity relies on a broadly-based involvement in scholarship and research across the range of universities and other research providers, although with considerable variation by field of research. Given these challenges, AUQA urges the inquiry to consider strategies to improve universities' capacity for strategic workforce planning generally.

Many Cycle 1 audit reports recommended that universities pay greater attention to workforce planning or affirm the recognition by universities of strategic workforce issues. While there are a few commendations for good practice in this area, e.g. for strategies and processes for both recruiting and retaining outstanding staff, there are many more calls for improvement in audit reports.

In audits undertaken between 2002 and 2005, audit panels have urged universities to take a stronger approach to aligning their workforce planning and strategic goals, as in the following examples:

> *AUQA recommends that [the University] develop a comprehensive University-wide human resources strategy, to identify the future mix of skills required to achieve its overarching strategic priorities and that top level management at the University commit to the development and implementation of such a strategy.*

> *AUQA recommends that [the University] ensure that it is paying sufficient attention to human resources planning and management systems and processes, in order to guard against the potentially deleterious combined effect of increasing workforce casualisation, low turnover in ongoing employment category staff, and an ageing workforce.*

> *AUQA recommends that [the University] establish a strategic human resource capability and capacity designed to support its new Strategic Plan.*

> *AUQA recommends that [the University] undertake more formal and strategic workforce planning to ensure that it can continue to achieve its Mission under changing employment patterns and conditions.*

> *AUQA recommends that [the University] develops within Human Resources an enhanced understanding of the particular role of human resource management within a University context, and in particular in the context that [the University] finds itself.*

Specific recommendations address the recruitment of researchers and younger academic staff in several institutions, as follows:

> *AUQA recommends that, in order to achieve its aims for research performance, [the University] consider additional measures to recruit and retain outstanding research scholars and those of proven research potential.*

> *That, in order to raise the level of research activity throughout the University, [the University] consider developing a University-wide strategy for incorporating research in workload management for staff*

> *AUQA recommends that [the University] urgently develop systems to attract, support, and advance early career academics across all aspects of teaching, research, and engagement; and encourages such staff to engage in the University's strategic change processes, so they can be actively involved in the shaping of the institution's future.*

More recent audits indicate that universities themselves have recognised the need for greater attention, as in these examples of affirmations from audits arried out between 2004 and 2006:

> *AUQA affirms the attention [the University] is giving to aligning human resources with strategic priorities for its future…*

> *AUQA affirms [the University's] decision to strengthen the central human resource function in staff recruitment, induction, development and promotion*

> *AUQA affirms [the University's] planning and initial implementation of the Workforce Renewal Project but suggests the University give greater attention to staff recruitment processes which reinforce its strategic directions*

> *AUQA affirms [the University's] attempts to strengthen workplace planning systems, including development of systematic succession planning processes and introduction of human resource benchmarking processes*

AUQA affirms the intention of [the University] to embed workforce planning into the strategic planning and budgeting cycle and notes as a positive development the inclusion of workforce planning indicators in management reports

AUQA affirms the need for [the University] to change from a 'personnel' model of staff management to a 'human resources management' model, having regard for the identified strategic and organisational development needs of the University.

AUQA's impression is that many universities are not yet fully equipped to engage in strategic workforce planning in ways that reflect good practice in professional and other employment sectors. The inquiry may care to consider how best to increase the capacity of Australian universities to improve their strategic workforce planning in the light of the requirements of the National Protocols.