



**THE AUSTRALIAN NATIONAL UNIVERSITY**

**THE GRADUATE SCHOOL**

**Impact of Reduction in Duration of  
Scholarships on PhD Quality**

**Graduate Degrees Committee Working Party**

**GRADUATE DEGREES COMMITTEE**

**Working Party on PhD Research and Funding Limits**

**Occasional Paper GS 96/5**

## **IMPACT OF REDUCTION IN DURATION OF SCHOLARSHIPS ON PhD QUALITY**

### **1. INTRODUCTION AND TERMS OF REFERENCE**

The following extract from the minutes of the Graduate Degrees Committee meeting of 7 October 1993 gives the background to this matter, and the terms of reference for the Working Party:

"A memorandum dated 30 July 1993 from the Secretary of the Board of the Institute of Advanced Studies was received.

The Secretary stated:

As you are aware, on 15 July 1993, the Board of the Institute of Advanced Studies considered the following motion from the Faculty Board of the Research School of Pacific Studies:

"Faculty Board of the Research School of Pacific Studies deeply regrets the imposition of the maximum extension of six months to a three year scholarship. In some disciplines and on some topics this time limit is incompatible with the University's expectation that doctoral students will produce a thesis at the highest international standard."

The Director, Research School of Pacific Studies advised the Board that there was a particular problem in the School with postgraduate students, mainly in the field of Asian studies. The nature of the research of many scholars in this area required them to undertake extensive language studies or extensive field work in order to complete their PhD.

The Board was aware that the University's policy covering the duration and extension of scholarships conformed with the guidelines of the Department of Employment, Education and Training and was not out of step with the policy of The Faculties or other universities. Nevertheless Board members were of the opinion that the RSPacS motion drew attention to some issues about which information should be gathered. This would enable the University to assess whether the policy was having a significant impact on the nature and quality of an ANU research PhD or on the amount of stress experienced by the students. Therefore, the Board resolved to report the points made in discussion to the

Graduate Degrees Committee for consideration. The Chair invited members of the Board to send him further comments on this matter, however none have been received to date.

Could you please arrange for the Graduate Degrees Committee to consider the points which were raised by members of the board and to report back to the Board in due course.

- Is the quality and quantity of study and research required of candidates for the ANU degree of Doctor of Philosophy out of step with other Australian universities or internationally?
- Has the expectation that the degree will be completed within three years influenced candidates' choice of a research topic? Are candidates choosing "safer" topics which they know could be completed within the time?
- Has research which has been done by candidates in a three year period been at the standard internationally recognised by examiners for the degree in the relevant discipline?
- To what extent are the terms of the Government's postgraduate scholarship scheme sufficient to support the completion of an ANU research PhD? What is the experience in other Australian universities?
- PARSA expressed concern that PhD students are unclear about the University's expectations with regard to a research PhD.
- Many PhD scholars experience a great deal of stress due to the three year tenure of research scholarships because the nature of their research requires time to master experimental techniques, languages etc. before they can begin research into their chosen topic.
- What is the best mechanism for supporting scholars in the Asian studies area in RSPacS who, due to the nature of their research, require longer than three and a half years to complete their doctoral degree?

Some of the points made during discussion were

- 1) it was totally unrealistic to expect PhD research projects in many fields to be completed in 3 to 3 1/2 years if a thesis meeting the highest international standards was to be produced;
- 2) there should be flexibility on a research project basis to provide support beyond 3 1/2 years if necessary;
- 3) it was suggested that perhaps DEET could make available funds equal to the determined numbers of awards but then allow institutions to use these funds

flexibly ie funds saved by an early completion could be used to extend another award beyond 3 1/2 years if warranted;

- 4) any extension of financial support beyond 3 1/2 years would be very costly and in the current financial climate at the expense of the number of scholarships awarded;
- 5) it should be noted that the University had amended the PhD rules to specify that a research project should be able to be completed in 3 years full-time study in 1987 ie three years before the scholarship funding restrictions were imposed;
- 6) the expectations of an ANU PhD thesis were perhaps too high and needed to be trimmed back.

It was resolved to establish a working party comprising Dr Spear (Chair), Ms Bygott, Professor Jenner, Professor Nelson and Professor Radom *to consider the issues raised by the Board and in the discussion, including the desirability of introducing a supplementary scholarship scheme. The working party would have the power to co-opt if desirable.*"

The italicised section of the last paragraph constitutes the terms of reference for the Working Party.

## 2. TENURE OF SCHOLARSHIPS

Australian Postgraduate Research Awards (APRA) allocated before 1 January 1989 were for a period of 3 years, but extension by a maximum of up to 12 months was easily arranged. As from that date, the maximum extension was reduced by the Australian Government to 6 months, and much more stringent conditions were imposed: extensions would be granted only "where the research has been delayed by circumstances beyond the scholar's control and related to the research rather than of a personal nature". Academic staff were advised of the tenure changes in a circular from the Registrar dated 22 December 1989. The University has since 1976 applied the same general terms of eligibility and benefits to its own scholarships as those applying to APRAs (now Australian Postgraduate Awards with stipend, APA).

## 3. ANU REQUIREMENTS

The maximum length of a full-time PhD course at the ANU is 4 years (PhD Rule 10(2)). However, in the mid 1980's the ANU became increasingly concerned, on both educational and financial grounds, at the perceived blow-out in the time taken by students to complete a PhD. Accordingly, in 1987 the GDC considered in depth the question of the nature of the PhD and in particular the size and scope of the research and standard expected for the award of the degree. The outcome of these considerations was, *inter alia*, the amendment in August 1987 of rule 20 of the PhD rules which then read:

"To qualify for the degree a candidate is required to make a substantial contribution to learning and to reveal a capacity to relate the research done by the candidate to the broader framework of the discipline within which it falls and related disciplines, at the highest contemporary university standards."

to read:

"To qualify for the degree, the candidate is required:

- a) to carry out independent research involving a comprehensive study of a scope and size that could normally be expected to be completed in the equivalent of 3 years' full-time study; and

to make a substantial contribution to learning and demonstrate a capacity to relate the research done by the candidate to the broader framework of the discipline or disciplines within which it falls at the standard internationally recognised for the degree in the relevant discipline or disciplines."

Thus, the University itself decided that the research content of a PhD should be that appropriate to 3 years' full-time study, **before** the Government reduced the length of scholarships. However, the maximum course length was maintained at 4 years, partly for the reasons indicated in the first of the following extracts from the record of discussion at the relevant GDC meeting:

- the suggested amendment to Rule 20 defines the normal expectation that a PhD course be completed in three years. It does not preclude a longer course duration where pre-requisites such as language requirements, fieldwork or course work units occur. Nonetheless the scope of the study once the pre-requisites have been satisfied should still comply with the three-year expectation;
- the three year definition of size and scope of the PhD course should be viewed as a planning intention which would provide assistance to supervisors and prescribed authorities in the initial definition of the topic of the proposed PhD research and the limits on the research expected of the student. The three year period is not intended to describe the present duration of PhD courses;
- it is important that both supervisors and prescribed authorities recognise their role in initially defining a topic which can be reasonably expected to be completed within a period equivalent to three years full-time study;
- the word "normally" should be retained under Rule 20 to accommodate those situations which were outside the control of students, for example equipment failure, and which would prevent completion of the course within the prescribed time period.

All PhD examiners are explicitly advised of the University's policy by direct quotation of Rule 20.

#### **4. INITIAL DISCUSSIONS OF WORKING PARTY**

The Working Party first met on 3 November 1993. It noted, inter alia,

- (i) the ANU's requirements for a PhD degree, expressed in PhD rule 20 as amended in 1987 (see section 3 above); and
- (ii) that in deciding to reduce the length of PhD scholarships, the Government was accepting the recommendation of an ARC report of April 1989.

The Working Party agreed that more information should be sought, in particular that the AVCC should be asked to seek the views of other Australian universities.

The Working Party met for a second time on 14 March 1994, with Ms Chin-Atkins replacing Ms Bygott as the PARSA representative, and Dr Ravenhill replacing Professor Nelson. It noted that the requested AVCC survey was in progress, and discussed recent PhD reforms in the UK.

#### **5. RESULTS OF AVCC SURVEY**

In August 1994 the AVCC sent to all Australian universities a questionnaire entitled "Examination Procedures for Higher Degree Theses". At the instigation of the ANU, the following question was included:

"Has any consideration been given to reducing the size and scope of the research required for award of the PhD degree to take account of the three to three and a half year scholarship funding limit for APAs?"

Apart from the ANU, 35 universities responded to this question. Of these, 27 answered "no". Another 6 indicated that they had considered the question, but had not made any consequent changes. Only 2 indicated that changes had been made as follows.

Melbourne: "Yes, in 1994, all commencing full-time PhD candidates are 3 years with a possibility of 2 x 6 months extensions"

Southern Cross: "Yes, aim for 3 year PhD".

Thus it seems that the matter is not one of burning concern among Australian universities in general. This is consistent with advice previously given by officers from DEET, and with private communications from senior staff members at the universities of Queensland and Melbourne.

## 6. VIEWS OF ANU PhD STUDENTS

In late 1994, PARSA conducted a survey of ANU PhD students to determine their views on the "3-year scholarship limit". A total of 477 surveys was sent to PhD students, and 142 responded, ie a response rate of 30%, or approximately 15% of the total PhD enrolment (966). The following are some of the main features of the results:

"Will you complete within the 3 year scholarship time-frame?"

Yes — 51 (36% of respondents) No—84(60% of respondents)

"Have you heard of or experienced positive or negative consequences arising from the 3 year limit?"

Positive — 16 (11%) Negative 107 (75%)

Of those who reported negative comments, 16 (12% of respondents) agreed that "3 years limits originality", and of those who reported positive comments, 12 (9% of respondents) agreed that the limit "encourages finishing within the 3 year limit".

In summary, a disappointingly small proportion of PhD students responded, but of those who did, 36% expected to finish within 3 years, 75% had heard of or experienced negative consequences arising from "the 3 year limit", and only 12% agreed that the "3 year limit" inhibits originality.

A copy of PARSA's own analysis of the survey results is attached (Attachment A). The following extracts summarise PARSA's conclusions:

*"The main message that we are receiving is that PhD students are being adversely affected by the strict study time-frame. While providing a greater number of scholarships to incoming students, the Government has abdicated responsibility for these students once they are in the system."*

*"Nor are universities absolved from guilt. The survey illustrates that students believed their supervisors frequently and deliberately flaunted [sic] University policy of ensuring students' research projects be " ... of a scope and size that could normally be expected to be completed in the equivalent of 3 years' full-time study" (The Graduate School Handbook 1994: 357)."*

*"Resolving the three-year scholarship debate is not a simple task. However, given the evidence of the average time taken by students to complete their PhD's, it would be sensible to fund all PhD scholarships for at least three-and-a-half years".*

*"Ideally, if the Government was committed to a "clever country" it would act responsibly towards its student researchers and fund PhD projects for the full four years of the PhD course."*

## 7. VIEWS OF ACADEMIC STAFF

On 22 November 1994 a memorandum was sent to Heads of Research Schools and Centres, and Deans of Faculties, informing them of the establishment of the Working Party, referring to the assertion that "there was some evidence that the Government's new policy .... was impacting on the quality of student research "(BIAS, 21 July 1994), and inviting them to provide hard evidence in support of this view. By early February 1995 only two responses had been received, so a reminder memorandum was distributed.

In the event a total of 21 responses was received. They came from the following sources:

- Convenor, Graduate Program in Astronomy and Astrophysics (D. Faulkner)
- Convenor, Graduate Program in Ecology, Evolution and Systematics (P. Gullan)
- Convenor, Graduate Program in Biochemistry and Molecular Biology (A. Howells)
- RSC
- RSPHysSE (quoting from School Submission to Review Committee)
- SMS (D. Cossey/M. Newman)
- RSES (F. Lilley)
- RSBS (quoting from report of Review Committee)
- RSBS (quoting from School response to Review Committee report)
- B. Ninham (Applied Maths, RSPHysSE)
- B. Kenkeleit/L. Van Vliet (DIR, RSPAS)
- J. Fox (Anthropology, RSPAS)
- R. Garnaut (Economics, RSPAS)
- B. Anderson (RSISE)
- J. Turner (Dean, Faculty of Science)
- D. Byrne (Psychology, Faculty of Science)
- T. Marples (BOZO, Faculty of Science)
- E. Bachelard (Forestry, Faculty of Science)
- J. Elix (Chemistry, Faculty of Science)
- M. Elvin (Pacific and Asian History, RSPAS)
- H. Bachor (Physics, Faculty of Science)

One respondent (Elix) considered that "this is a non-issue. Our PhD students have been expected to complete their course (in normal circumstances) within three years and have done so for the most part since the early 1980's".

Three respondents (Gullan, Marples and RSC) had mixed views; among other things they suggested that problems arose because supervisors were setting too high a standard, that a longer period encouraged supervisors to use students as "cannon fodder", and that the shorter period "encouraged careful organisation and therefore fostered good research skills".

The remaining 17 respondents, ie the overwhelming majority, mentioned only negative consequences of the shorter scholarship period. None was able to produce "hard evidence" of quality reduction; typical views were those from SMS ("We do not believe that the quality of work recorded in the thesis has varied significantly; it is the less tangible components of research training that have been affected") and Turner ("It is difficult to provide hard evidence that the quality of the PhD thesis has declined, but this may be the wrong or at least an unduly narrow approach to the question. There is a view that it is the intangible, difficult to measure aspects of PhD education which are suffering").

The most commonly quoted negative consequences of the reduction in scholarship length were the following:

- The "safe-topic" syndrome (9 references, eg "Only very safe projects are chosen" — Bajor; "Such time limitations generally force more narrow training, encourage safe rather than ambitious research projects" — RSBS Review Committee: "Students must narrow their intellectual focus quickly; they cannot explore ideas; problems, issues to the same degree as previously; they cannot afford to take risks or make their own mistakes etc. There may be a loss of the intellectual maturity, depth, breadth which the PhD has traditionally sought to induce, and a reduction in students' intellectual aspirations" — Turner; "Thus students are on average less capable of independent research at the completion of their PhD than they once were " — SMS)
- Problems arising from unavoidable delays due to such things as the need to construct equipment, unexpected equipment malfunctions, difficulties in fieldwork, irregular and limited access to major experimental facilities, seasonal impacts on data acquisition, and poor supervision ("a worse infliction than physical illness" — Ninham) (7 references).
- Pressures arising from the need to meet established course-work requirements (5 references).
- Students are reluctant to undertake otherwise valuable activities (eg seminars, discussion groups), that are not directly related to their thesis work; sometimes supervisors encourage this approach. (5 references)
- Pressures arising from the need to develop necessary skills, eg learning a new language or new experimental techniques (5 references)

- Students do not have time to achieve the level of excellence needed to make them competitive with overseas graduates in the competition for post-doctoral appointments (4 references)
- The unavoidable need for long periods of field work; this problem is particularly acute in anthropology (4 references)
- Students are disproportionately productive towards the end of their degrees (3 references, eg "The fourth year is enormously productive, and some originality, independence and confidence achieved" - Ninham)
- In the case of overseas students, time delays due to language and cultural problems (3 references).
- The quality of our PhD graduates reflects upon the ANU (Lilley)

It was a common view that there should be more flexibility in scholarship arrangements so that in deserving cases extensions up to a total length of 4 years could be granted. However, RSC offered a cautionary note: "It was agreed that there should be more flexibility in the system, but past practice showed that as soon as extensions became more readily accessible, they soon became general, since compelling cases could always be made for each and every student to get an extension. In accordance with Parkinson's Law, research for the PhD would expand to fill the time available".

## **8. COMMENTS BY 1995 COMMITTEES OF REVIEW OF IAS SCHOOLS AND CENTRES**

Some of the 1995 Committees of Review of IAS Schools and Centres expressed concern that PhD scholarships are limited to a maximum of three and a half years. In some cases these concerns related to the restrictions thus imposed on broadening the PhD experience through teaching experience, course-work, and language training. Some of the relevant comments are as follows:

### **Research School of Biological Sciences**

*The Committee feels that PhD training at RSBS could be further enhanced if the current length of PhD scholarships were increased, some form of course work were introduced and the students were to gain some teaching experience.*

*The Committee has concerns about two issues of direct relevance to the continued quality of the graduate program: (1) the length of time of the PhD scholarship support and (2) the relative lack of graduate-level coursework ... [most] Committee members feel that advanced level graduate coursework is vital to adequately train graduate students in biology today.*

**Research School of Chemistry**

*The Review Committee was disturbed to learn of the RSC's problems concerning the imbalance between the required three year funding for research studentships and the expectation by some of the faculty that postgraduate training should take four or more years. The three year period of support thus produces great anxiety in the students that influences the conduct of their research and the atmosphere in which they work. We urge the RSC and the University to take steps to bring these factors into balance.*

**Research School of Earth Sciences**

*Problems arising from the 3 to 3.5 year funding limit in respect of PhD students who convert to earth sciences from other disciplines, or who need to acquire special skills for use of complex instrumentation, should be addressed.*

**Research School of Information Sciences and Engineering**

*The Review Committee supports an extension of the normal form of postgraduate awards for students working in this area. The addition of a broad training to their specialised research activity is seen as essential for the production of the well-balance[d] graduates who will be required by (Australian) industry. As well, much of the work of the School is experimental, which requires more time for completion than purely theoretical research.*

**Research School of Pacific and Asian Studies**

*The Committee believes continuing review is needed of the length of PhD scholarships and courses, particularly in view of language and fieldwork requirements for many PhD students in this School. The possibility of introducing coursework in programs for PhD students where this is not yet provided and of providing some teaching experience should be considered.*

*Many PhD programs overseas now require coursework. The absence of coursework in most divisional PhD programs in the School is out of line with international practice in the English speaking world.*

**Research School of Physical Sciences and Engineering**

*.. cutoff in postgraduate funding after three and a half years is apparently producing considerable strain on the graduate students. This puts considerable pressure on students to take on "safe" problems.*

### **School of Mathematical Sciences**

*The committee recognises the various impediments to the recruitment of graduate students. These include...*

*...lack of mobility of Australian students, exacerbated by the three-year funding limit on PhD scholarships. This limit encourages a trend of universities towards using the honours year as the first year of graduate work, which further ties students to their first-degree institution;*

*-deterioration in the level of preparation of mathematics honours students, partly resulting from the expanded unified national system. The three-year funding limit on PhD scholarships puts increased pressure on prospective graduate students, particularly those who are less well prepared....*

## **9. COMPLETION TIMES**

Completion times for successful PhD degrees at the ANU are shown in Attachment B. For full-time students, the median completion time (ie time from enrolment to first submission of thesis) has decreased substantially from 50 months in 1989 to 41 months in 1994. It can be argued that for some students, increasing the length of their scholarship will actually reduce their completion time, since it will enable them to continue full-time without the need to go part-time so that they can earn supporting income.

## **10. POSSIBLE ANU RESPONSE**

In deciding how the University should respond to this situation, the following options might be considered.

*(a) Press the Government for restoration of the previous tenure arrangements*

The Government could be lobbied to return to the arrangement whereby scholarships are awarded initially for 3 years, with the possibility of two extensions of 0.5 years up to a total of 4 years. This would require either an increase in total expenditure or a reduction in the total number of awards.

*(b) Press the Government for greater flexibility*

For example, it might be proposed that the Government give the University complete funding for 3.5 years for all scholarships awarded, and leave it to the University to decide how the money is carved up. Funds saved by early completions could then be used to support those who for legitimate reasons go beyond 3.5 years, or to fund, *ab initio*, longer awards for particular disciplines (eg Anthropology) or circumstances. The difficult decisions about initial scholarship length and extensions could be made by some such body as the Joint Committee on Postgraduate Awards. It should be noted that this would

reduced); at present, funds are provided only for the actual length of each course, and savings arising from early completions do not accrue to the University.

(c) *Introduction of a supplementary scholarship scheme by the ANU*

There does not seem to be any legal impediment to prevent the ANU from supplementing APAs and ANU-funded scholarships should it wish to do so. A crude estimate of the annual cost can be made as follows:

**Assume** total of enrolled PhD students =956 (as for 1994)

**Assume** the following scholarship numbers (as for 1994):

APA	266
Graduate School Scholarships	120
ANU Scholarships	<u>318</u>
TOTAL	<u>704</u>

**Assume** median course length = 42 months = 3.5 years (see Attachment B)

number of scholarship holders finishing each year will be approximately  $704/3.5$ , say 200.

**Assume** that funding arrangements up to 3.5 years remain unchanged

**Assume** that all scholarship holders whose course runs to 3.5 years have achieved funding up to 3.5 years, and that the supplementary scholarship scheme will be used to fund these students beyond 3.5 years, for a maximum period of 0.5 years (course expires after 4 years)

**Assume** effective average extension is 0.25 years

**Assume** stipend is \$15000 per annum

Since median completion time is 3.5 years, the number of scholarship holders requiring supplementation will be  $200 \times 0.5 = 100$

cost per year will be  $100 \times 0.25 \times \$15000 = \$375000$

In order to ensure equity for students across the University, it would be necessary to take funds off the top of the University budget, and for extensions to be allocated on the basis of merit by some body such as the Joint Committee on Postgraduate Awards. It would probably be necessary for this body to meet at least 6 times per year. Provision of an amount of \$250000 would introduce an element of competition into the process and ensure that extensions are not taken for granted.

One hazard of implementing such a scheme would be the possibility that the Government might consider the ANU to be overfunded if it can afford to be distinctly more generous than other universities.

*(d) Accept the status quo*

This would mean continuation of the present ad hoc and inequitable arrangements for funding students for the period of course remaining after scholarship expiration; at present, well funded and generous areas adopt various devices for providing such funding, whereas students in more impecunious or less generous areas usually have to find part-time work or live off private means. It would also mean that the University should take all possible steps to assist students to complete courses within the period of scholarship tenure, consistent with the maintenance of appropriate standards.

## **11. CONCLUSION**

The members of the Working Party are persuaded that the overall quality of the ANU PhD thesis is extremely high by international standards. This is certainly the view of the Chairman of the Graduate Degrees Committee, who has read all PhD examiners' reports for the past 5 years, and who visited leading overseas universities (including Cambridge, Oxford, Imperial College, Harvard, Florida State and Caltech) in late 1993 with the specific purpose of evaluating the ANU PhD. It is supported by the fact that only 7% of submitted theses are required to be revised and re-submitted, and only about 1% are failed. The attached report (Attachment C) on Crawford Prize awards for 1993 provides further supporting evidence; admittedly the theses concerned are the best of the crop, but the examiners' comments are particularly striking, even for those that were not awarded a prize. The comments of 1995 IAS review teams are similarly supportive.

It is essential that this high quality be maintained. It should not be jeopardised by the truncation of scholarship tenure. Leaving aside political considerations, the Working Party recommends that possible ANU responses should be assigned the following order of priority:

1. Press the Government for restoration of the previous tenure arrangements;
2. Press the Government for greater flexibility;
3. Introduce a supplementary scholarship scheme from ANU funds (cost \$250000 per annum);
4. Accept the status quo.

- Attachments:
- (A) PARSA survey report
  - (B) Table "Length of Successful Post-Graduate Research Degrees"
  - (C) Report "Crawford Prize Awards for 1993" (ANU 152/1994)

In the final stages of the Working Party's deliberations, Dr Dutton replaced Dr Ravenhill, and Ms Willis replaced Ms Chin-Atkins.

R.H. Spear  
5 March 1996

**A CLEVER COUNTRY?**  
**The three-year scholarship debate**  
**By Katie Willis**

Following the article “3-yr PhD scholarship limit has serious ramifications” in the February 1994 edition of the postgraduate student paper *Antithesis*, a great deal of interest was aroused amongst both student and academic communities regarding PhD scholarship limits. This article was the impetus for similar articles appearing in newspapers such as *The Canberra Times* (21/9/1994) and *Campus Review* 1-7/9/94. It is clear that both students and the wider community have valid and continuing concerns regarding this issue.

In response to perceived difficulties with the three-year scholarship limit, the Postgraduate and Research Student’s Association (PARSA) produced a survey which aimed to gauge current ANU PhD students’ experiences as students on scholarships. Of 477 surveys sent to PhD students, 142 were returned; this represents a response rate of approximately 30%.

The three-year scholarship limit (with a maximum of six months possible extension) was introduced by the Department of Employment, Education and Training (DEET) in 1989. This decision was made, ostensibly, to alleviate an increased demand in PhD education by providing a greater number of scholarships to incoming students (ie by moving current students through the system more quickly).

DEET’s decision to limit PhD scholarships contradicts the empirical evidence: few students have *ever* completed their studies within three years. PARSA’s postgraduate Exit Survey indicates that only 4% of ANU’s graduating PhD population between 1991 and 1994 finished in less than three years. According to the University’s own statistics, the mean PhD completion time at the ANU between 1989 and 1993 was 4 years and 5 months (ANU Planning Unit 1994). PARSA’s Exit Survey corroborates this figure with a mean completion time of 4 years and 2 months. Mean completion times have decreased substantially since 1989 (from 57.5 months in 1989 to 46.7 months in 1993), but it is still taking ANU students approximately four years to complete their degrees. Interestingly, while ANU PhD enrolments have increased since 1989, there has been a significant decrease (around 40%) in completions (ANU Planning Unit 1994). One can only wonder at why there is an increasing number of students who begin but don’t go on to finish their PhD degree.

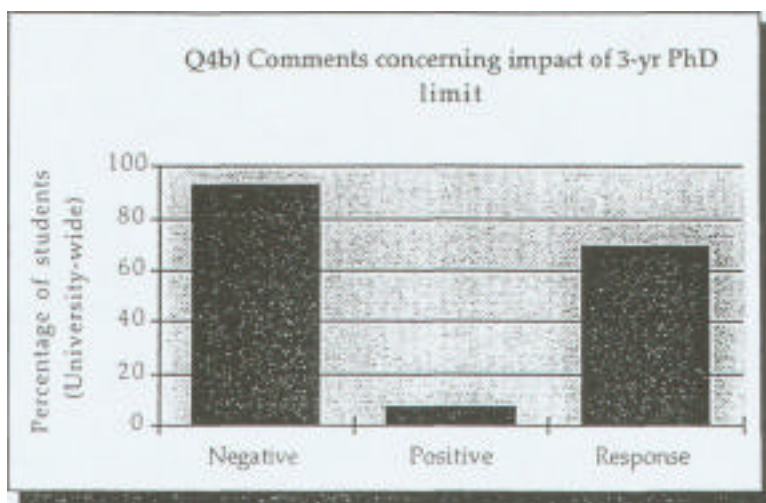
The ANU’s PhD completion rate compares favourably with other universities’. At the ANU between 1990 and 1992, 23% of the PhD student body completed their PhD’s in any one year (which roughly calculates an average overall completion time of 4 years) whilst nationally only 13% of students completed their degree in the same period (ANU Planning Unit 1994). ANU’s completion rate could be explained by this university’s high enrolments in fields of science which are generally characterised by higher rates of completion (PARSA Exit Surveys; ANU Planning Unit 1994).

Strictly limiting the term of scholarship has obvious and serious ramifications for PhD students. For example, students who began their PhD’s after 1989 have a significantly reduced chance of receiving a scholarship extension. Extensions will now only be issued under extenuating academic circumstances. If a student is affected by serious illness, problems of a personal nature, or problems with their supervisor(s) or workplace they have no legal grounds for an extension. In addition, provision for sick leave, course suspension, has been reduced from 12 to 3 months.

Under current University rules, the PhD course is four years. This fourth year is unfounded and students are forced to live off their savings; an undesirable and often unrealistic expectation. To subsidize themselves students are frequently driven to part-time work which limits valuable time and

Another effect of the limit is increased stress placed on students to complete their research projects on time whilst also recognising the University's expectation that their work be "at the standard internationally recognised for the degree in the relevant discipline or disciplines" (The Graduate School Handbook 1994:357). Almost 10% of survey respondents complained that the scholarship limit reduced their scope for working on original research and forced them to pursue "safe" and "less risky" topics.

**Figure 1**



It is unfortunate then that students who do make interesting discoveries in their final year often find little or no time to explore them. Potentially, this is seriously damaging to Australia's research output. An immediate danger is that research quality suffers. This affects our international competitiveness as students working overseas have time to reflect on their project and improve their research. International examiners are unlikely to examine an Australian PhD thesis more leniently just because an Australian government imposes a strict research time limit. Indeed, despite the use of the University's examination guidelines, external examiners recently have been found to judge Australian and international theses similarly (Ballard 1995).

A further danger of limiting the PhD scholarship is losing our researchers and their work to the overseas market. Students will be forced to make decisions about where they study and will choose between a three-year scholarship in Australia and a scholarship offered elsewhere for say five years. This would have a devastating impact as PhD students in this country comprise around 50% of the total research effort (Powles 1984).

For students who choose original topics and/or projects which require extensive fieldwork, language acquisition and lab/instrument preparation the picture is glum. Nearly 15% of respondents believed that their research was compromised due to insufficient time (Fig. 1). Students found this was compounded by their supervisors' expectations of what they believed students should achieve during their term of study.

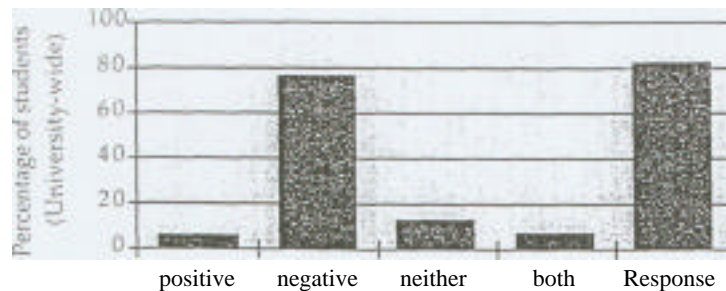
Almost 10% of respondents commented negatively, expressing concern that their supervisors ignored the three-year limit. Comments were frequently expressed along the following lines - ".the pressure to finish in three years is not matched by the expected standards [of] supervisors or...potential examiners in the international academic community"; "...you are expected to go over [the three-year limit]; with the noble thing being to live off your savings. I don't think anyone has gone under four years in this lab so far" and "[the] three year limit has not changed Departments' attitudes to projects - if it takes longer than three years to complete that's your problem". Levels of dissatisfaction were fairly evenly spread

throughout the Faculties and Research Schools. Few comments relating to this issue were provided by students located in Centres although this may be a reflection of the group's small sample size.

Overwhelmingly, students believed the three-year scholarship limit to be detrimental. Over 75% of students indicated that they had experienced, or heard of, negative consequences arising from the limit, whilst only 5% of students believed the limit was a positive initiative (Fig. 2). Negative comments were wide-ranging and included references to financial difficulties, extra support through part-time work (and correspondingly less time for study), decrease in extra-curricular activities, problems obtaining extensions, 'supervisory ignorance regarding the limit, decrease in project originality, limited time for fieldwork, problems obtaining leave for non-academic reasons and difficulties associated with equipment failure and visa application - the list goes on. The only real positive response provided was that the limit forced students to become well organised and focused on completing their degree.

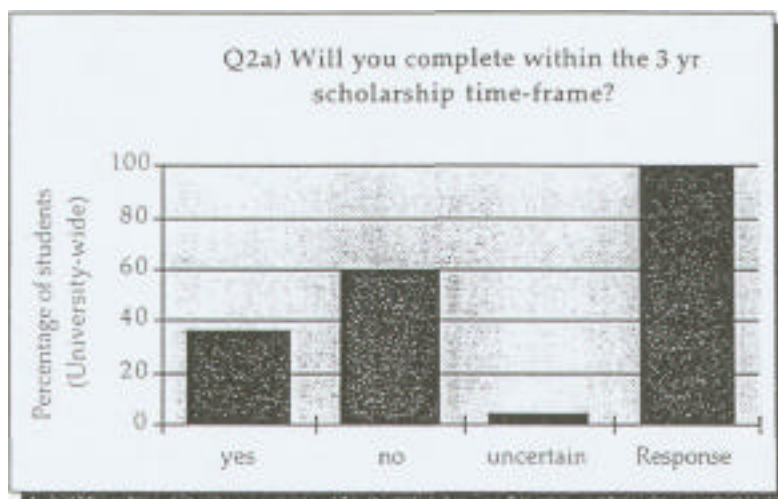
**Figure 2**

**Q4a) Have you heard of, or experienced, positive or negative consequences arising from the 3 yr limit?**



Question 2a, "Will you complete within the 3-year scholarship time-frame?", was equally negatively skewed with 60% of students answering "no" (Fig. 3). Approximately 35% responded "yes" and the remainder were "uncertain".

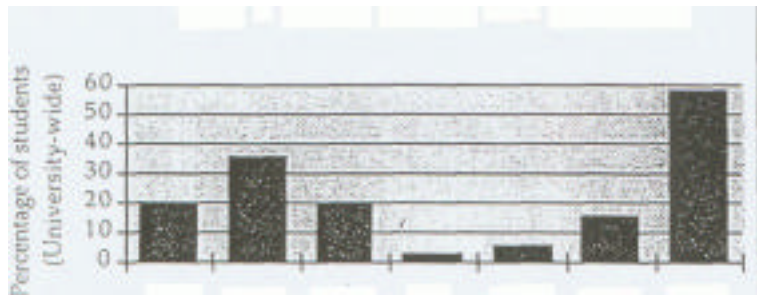
**Figure 3**



When asked how they would support themselves once their scholarship had finished most students

however, they are not entitled to this support when enrolled at a tertiary institution. One student's comments relating to this question were particularly disturbing. The student responded that in their Department several married female students who were considering applying for an extension were told by their supervisors that their husbands could (and thus should) support them financially. Further, the student indicated that these women were made to believe that it would be -inappropriate to apply for an extension which would deprive other more "needy" students. The student correctly questions the ethics of such advice. One is also left to wonder if this prejudicial practice is encouraged within the University?

**Figure 4**



Clearly, issues raised in this paper, and others, concerning the three-year scholarship limit are complex. The main message that we are receiving, however, is that PhD students are being adversely affected by the strict study time frame. While providing a greater number of scholarships to incoming students, the Government has abdicated responsibility for these students once they are in the system. The value of a PhD must only suffer under a "spaghetti factory" mentality.

Nor are universities absolved from guilt. The survey illustrates that students believed their supervisors frequently and deliberately flaunted University policy of ensuring students' research projects be "...of a scope and size that could normally be expected to be completed in the equivalent of 3 years' full-time study" (The Graduate School Handbook 1994:357). Without adequate supervisory support how can students, particularly those conducting extensive fieldwork etc., possibly expect to complete their

**Q2b) If you do not finish within 3 yrs how are you going to support yourself until completion?**

studies on time?

Resolving the three-year scholarship debate is not a simple task. However, given the evidence of the average time taken by students to complete their PhD's, it would be sensible to fund all PhD scholarships for at least three-and-a-half years. This would not be unreasonable in light of this survey as a considerable proportion of students (over 35%) indicated that they either have applied, or will be applying, for an extension anyway.

Ideally, if the Government was committed to a "clever country" it would act responsibly towards its student researchers and fund PhD projects for the full four years of the PhD course. However, this is unlikely given the recent trends in higher education funding. It is, therefore, crucial that the ANU enforces students' abilities "to carry out independent research involving a comprehensive study of a scope and size that could normally be expected to be completed in the equivalent of 3 year's full-time study".

**Sources**

\*ANU Planning Unit report into graduate student completion times, 1994.

\*Ballard, B *The quality of the ANU PhD thesis: An analysis of a sample of examiner's reports. A Pilot study.* A report to the Graduate School, 1995.

\*Powels, M *The Role of Postgraduates in Australian Research.* CAPA. 1984.

(Enrolment to Submission)

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**Length of Successful Post-Graduate Research Degrees (Months)**  
By Completion Year

1989	Award	FT	Mean	-Susp	Min	Max	Med'n	PT	Mean	-Susp	Min	Max	Med'n
MA(AS)-	MA (Asian Studies) (R)	3	47.5	47.5	26.8	57.8	57.8						
MA-R	Master of Arts (R)	8	31.9	30.4	22.3	66.7	25.7	5	49.0	49.0	29.8	86.6	44.8
MEC-R	Master of Economics (R)							1	48.0	48.0	48.0	48.0	48.0
MSC-R	Master of Science (R)	4	22.6	21.3	14.6	28.9	20.9	1	27.0	27.0	27.0	27.0	27.0
PHD	Doctor of Philosophy	172	60.1	57.5	22.7	182.7	49.7	8	71.6	69.2	27.4	89.9	81.9

1990	Award	FT	Mean	-Susp	Min	Max	Med'n	PT	Mean	-Susp	Min	Max	Med'n
MA(AS)-	MA (Asian Studies) (R)	1	31.2	31.2	31.2	31.2	31.2						
MA-R	Master of Arts (R)	8	44.5	41.4	21.5	67.5	40.0	2	43.7	43.7	20.8	66.5	43.7
MEC-R	Master of Economics (R)							1	30.0	30.0	30.0	30.0	30.0
MSC-R	Master of Science (R)	6	32.6	32.6	20.6	52.1	24.5	3	58.3	54.9	31.8	99.3	33.6
PHD	Doctor of Philosophy	143	54.7	52.9	26.0	139.3	47.5	6	58.4	54.6	43.8	66.8	54.4

1991	Award	FT	Mean	-Susp	Min	Max	Med'n	PT	Mean	-Susp	Min	Max	Med'n
MA(AS)-	MA (Asian Studies) (R)	1	35.9	24.5	24.5	24.5	24.5	2	63.8	54.0	50.4	57.8	54.0
MA-R	Master of Arts (R)	9	27.4	27.2	19.2	46.0	24.9	1	145.2	145.2	145.2	145.2	145.2
MSC-R	Master of Science (R)	8	23.2	23.2	6.5	32.9	27.6	3	43.2	37.1	28.7	47.9	34.7
PHD	Doctor of Philosophy	138	61.0	58.6	24.4	186.7	48.2	5	77.4	74.2	38.0	109.0	59.9

1992	Award	FT	Mean	-Susp	Min	Max	Med'n	PT	Mean	-Susp	Min	Max	Med'n
MA(AS)-	MA (Asian Studies) (R)	1	25.5	25.5	25.5	25.5	25.5						
MA-R	Master of Arts (R)	7	38.3	34.8	12.3	85.7	27.9	5	43.0	41.1	23.9	58.1	36.2
MEC-R	Master of Economics (R)	1	12.1	12.1	12.1	12.1	12.1						
MRES-R	M Resource & Env Studies							1	23.5	23.5	23.5	23.5	23.5
MSC-R	Master of Science (R)	9	31.6	31.2	23.7	75.3	25.1	2	53.5	53.5	25.5	81.5	53.5
PHD	Doctor of Philosophy	123	52.1	50.3	25.4	167.8	44.6	11	82.7	78.6	46.5	113.1	75.6

1993	Award	FT	Mean	-Susp	Min	Max	Med'n	PT	Mean	-Susp	Min	Max	Med'n
MA-R	Master of Arts (R)	3	51.0	46.0	24.0	87.5	26.6	2	40.5	40.5	36.2	44.8	40.5
MC-R	Master of Commerce (R)	1	10.0	10.0	10.0	10.0	10.0						
MSC-R	Master of Science (R)	12	26.3	26.3	17.6	33.4	25.1	3	55.1	55.1	37.8	79.4	48.0
PHD	Doctor of Philosophy	125	48.8	47.2	28.8	91.5	44.7	6	67.5	64.9	43.4	108.0	51.0

1994	Award	FT	Mean	-Susp	Min	Max	Med'n	PT	Mean	-Susp	Min	Max	Med'n
MA-R	Master of Arts (R)	1	27.0	24.0	24.0	24.0	24.0						
MC-R	Master of Commerce (R)	1	22.9	22.9	22.9	22.9	22.9						
MSC-R	Master of Science (R)	3	29.9	27.8	24.8	33.3	25.4	3	37.4	37.4	24.0	48.0	40.1
PHD	Doctor of Philosophy	57	46.9	45.1	34.2	96.0	40.6	4	63.5	59.6	34.1	83.9	60.2

- Note: 1. Research Degrees include combination Research & Coursework Degrees.  
2. Tallies do not agree with Statistical Handbook entries as the latter relate to Council Approval Data.

**THE AUSTRALIAN NATIONAL UNIVERSITY  
THE GRADUATE SCHOOL**

**CRAWFORD PRIZE AWARDS FOR 1993**

The J G Crawford Prize fund was established in 1973 to recognise Sir John Crawford's outstanding contributions to the University, both as Vice-Chancellor for five years and as Director of the Research School of Pacific Studies for the preceding seven years.

Each year a small committee appointed by Council, and chaired by the Dean of the Graduate School, selects those postgraduate students most deserving of recognition.

At present two prizes are available for award to PhD students who have submitted theses during the preceding calendar year, normally one to the hard sciences and one for social sciences/humanities. One prize is also available for Master degree graduates. Each prize consists of a medal for desk display, and cannot be shared.

The main criterion used by the award committee is academic excellence, usually assessed mainly on the quality of the thesis. Other contributions to the life of the University may be taken into account. The selection of awardees from candidates nominated by various parts of the University is a difficult but most encouraging experience. Members of the award committee agree that the quality of theses considered for the 1993 awards is the best they have experienced.

The science PhD award for 1993 went to Dr Ben Andrews of the School of Mathematical Sciences for a thesis entitled "Evolving Convex Hypersurfaces". This thesis presents major new results obtained from an investigation into the evolution of hypersurfaces of Riemannian manifolds by certain geometric parabolic equations. Both the mathematical techniques developed and the thesis presentation can justifiably be described as "remarkably elegant". One examiner commented that the thesis "places Ben Andrews among the top young researchers in this area instantly", and another that "the thesis will serve to establish Mr Andrews as one of the leaders of the field, regardless of age and experience". On the basis of his thesis alone, Andrews has been appointed to a tenure-track position at Stanford, a most unusual distinction.

The social sciences/humanities PhD prize went to Dr David Roe, Prehistory, RSPAS, for a thesis entitled "Prehistory without Pots: Prehistoric Settlement and Economy of North-West Guadalcanal, Solomon Islands". Dr Roe's thesis describes an archaeological research project in the north of the island of Guadalcanal, an area previously virtually unknown in archaeological terms. Despite the difficulty encountered in re-excavating a badly-treated site, Roe, by application of a variety of field and laboratory techniques, has succeeded in making a major contribution to Pacific prehistory. The work was described by the examiners as "a critical contribution to the extant knowledge of a field of study not often achieved within the covers of a doctoral thesis", "an outstanding piece of research that must stand as an example of the kind of contribution that a doctoral scholar should produce", and "an ambitious enterprise carried out with distinction".

The Master prize went to Margrit Davies, History, Faculty of Arts, for an MA thesis entitled: "Public Health and Colonialism: the Case of German New Guinea". The examiners' reports clearly identify this study of public health under the German colonial regime as one of outstanding quality. One examiner describes it as "a fine piece of work, rationally organised and admirably clear in structure and detail and scrupulously documented". The other considers it to be a work of "pioneering thoroughness" which has "really broken new ground", and he recommends that the thesis be awarded

The exceedingly high quality of this year's submissions is indicated by the following extracts from examiners' comments on PhD theses that were **not** awarded prizes. The examiners concerned were all external, mostly from leading overseas institutions, including Harvard, Caltech, Berkeley and Stanford.

- "... uncompromising excellence throughout. Every aspect of his work, theoretical and observational, is far better than anything that has previously been done in the vast literature on this subject over the past 25 years"
- "This dissertation will probably rank as the definitive study of extinction in galaxies"
- "In ten years teaching Astronomy at Caltech this is the best PhD thesis I have examined"
- "In all aspects his efforts were crowned with success, and as a result, his thesis overthrew the previously generally accepted paradigms and furnished a fundamentally new contribution to our understanding....."
- "His thesis is the best I can recall having examined. His touch is deft; his scholarship thorough; his criticisms persuasive; his writing a joy to read. I learned a great deal about the subject (not one at which I am a novice)"
- "It is a rare pleasure to come across a thesis as erudite, thorough, succinct and penetrating ..."
- "I was both delighted and dismayed by this work. Delighted because I had a new awareness of facets of Turkish I had experienced but lacked the concepts to describe, dismayed because my (own) arguments ... will have to be reworked"
- "A truly outstanding project in its design and conceptualisation, methodological rigour, analytical approach, and clarity of writing".
- "Indeed, I would say that this is the best doctoral dissertation I have ever seen".

Since the inception of the PhD prizes in 1973, 29 have gone to the IAS and 13 to the Faculties; this is pretty well proportional to the numerical distribution of students. Areas gaining the largest numbers of science prizes have been RSBS (6), RSPHysSE (5), and the Faculty of Science (4). For the social sciences/humanities prize, largest numbers have gone to RSPAS (9) and the Faculty of Arts (6).

R.H. Spear

25 July 1994