

Ten Years of the PHD Conference in Economics and Business

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Since its commencement in 1987, the PhD Conference in Economics and Business has become an important annual event in Australian Economics. This paper presents an overview of the last ten years of the conference regarding the students involved, their topics and backgrounds, as well as some information on the nature of PhD studies. The experience of these students reveals some key factors that seem to lead to successful research outcomes.

1 Introduction

By November 1997, the PhD Conference in Economics and Business had been held ten times. Given that most Australian PhD students in economics and business have limited inter-institutional contact with their peers and lack exposure to the larger academic community, the main objectives of this conference series are two-fold:

- To provide a component of the training of promising, young doctoral students by establishing a forum in which PhD students can present their research to other scholars, receive constructive criticism and be exposed to probing questions, and
- To overcome the problem of isolation and fragility of PhD research by providing a venue in which PhD students from characteristically small Australian economics and finance departments can meet with their peers and share experiences.

One characteristic of the conference is that each

student receives constructive criticism from a discussant who is familiar with the relevant area of research but has had no formal interaction with the student during the previous stages of her/his research. To enable students to gain the greatest benefit from the conference, the organizers try to carefully choose the most suitable discussant for each presentation. Each discussant not only reads the student's paper in advance and prepares a short presentation, but also writes and distributes, to those attending the presentation, a formal set of comments on the paper. The usefulness of the conference to students is thus heavily reliant on the effectiveness of discussants in providing helpful feedback of both a formal and informal nature.

After more than ten years of development, with over 200 students from all the major Australian universities involved, the unique nature of the conference series has contributed substantially to PhD studies and made it one of the leading national conferences in this area. The basic information on the conferences is given in the Appendix. In this paper, we present an overview of the students involved in the first ten conferences. We also discuss ethnic backgrounds and the nature of PhD studies—factors determining student choice of university, the support required for a successful PhD, the number of publications emanating from theses, completion times and overall level of satisfaction of students with PhD programs.

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While PhD enrolments in Economics and Business have surged in the last decade,¹ it is surprising that almost nothing systematic is known about the nature of the research underlying this important activity. Our paper is an attempt to gain some insights into this area. As the students involved in the conferences are probably among the best minds in the country, their experience may help understanding of aspects of PhD studies. Knowledge of the outcomes from past PhDs could also assist institutions in providing adequate support for students and in setting realistic benchmarks regarding completion times and number of publications.

II The Students and Their Topics

The ten conferences have attracted 227 students from 28 universities, including five overseas universities (Auckland, Canterbury, Victoria University of Wellington, Nottingham and Hitotsubashi). Table 1 gives a summary of the institutional affiliations of the students who attended the conference and identifies the top five universities, in terms of the number of students, as ANU (44 students), Monash (25), Sydney (17), UNSW (17) and UWA (16). The topics of the papers presented at the conferences are determined by the students, perhaps with some assistance from supervisors. Table 2 presents a summary of the subject and source of the conference papers. The most popular areas are Microeconomics and Finance, while papers dealing with Labour Economics, Macroeconomics, Development Economics and Econometrics also account for a substantial proportion.

Do particular universities specialize in producing PhD students in certain areas? This question is pursued in Table 3. The upper panel of the table eliminates many of the 'holes' in Table 2 by combining institutions with only a few students into the source 'Other'. The entries are then expressed as a percentage of the total number of papers (227), so that the typical element is interpreted as a joint probability, p_{ij} , the probability of having a paper on subject i ($i = 1, \dots, 9$) from university j ($j = 1, \dots, 13$). The row total $p_{i\bullet} = \sum_{j=1}^{13} p_{ij}$ is

the (unconditional) probability of a paper on subject i , while the column total $p_{\bullet j} = \sum_{i=1}^9 p_{ij}$ is the probability of a paper from university j . If subject and source are independent, then the joint probabilities are the products of the corresponding row and column totals, $\hat{p}_{ij} = p_{i\bullet} p_{\bullet j}$. These 'expected' probabilities are given in the middle panel of Table 3, while the bottom panel contains the residuals $p_{ij} - \hat{p}_{ij}$. If N is the total number of papers, then under independence $N \times \sum_{i=1}^9 \sum_{j=1}^{13} (p_{ij} - \hat{p}_{ij})^2 / \hat{p}_{ij}$ follows an asymptotic χ^2 distribution with $(9-1) \times (13-1) = 96$ degrees of freedom (see, e.g., Kmenta 1971, pp. 428-30). The observed value of the test statistic is 188 which is significant at the 1 per cent level.² Accordingly, independence of source and subject is rejected.

The expected probabilities \hat{p}_{ij} control for subject size and institutional size. Thus the residuals can be used to identify institutional specializations with respect to topics. Figure 1 displays the maximum and minimum of the residuals for each subject. Not too much should be made of individual residuals as there is naturally some degree of subjectivity involved in the classification of papers. It should also be noted that as the residuals for a given institution sum (over subject) to zero, a large positive value has to be offset by corresponding negative values. Accordingly, if a university has a larger-than-expected number of papers in one subject, then there is a tendency for it to be offset by a less-than-expected number in another subject. The ANU column in the bottom panel of Table 3 illustrates this as it has substantial positive entries for International Trade and Labour Economics, which are offset by substantial entries of the opposite sign for Microeconomics, Econometrics and Finance. Bearing in mind these qualifications, there are two key features of Figure 1: Monash has a specialty in Econometrics, while ANU specializes in Labour Economics. To a large extent, this reflects the influence of the teaching of Max King at Monash and Bob Gregory and Bruce Chapman at ANU.

² At the 1 per cent level, the critical value of $\chi^2(90)$ is 124.12, while the critical value of $\chi^2(100)$ is 135.81. As the critical value of $\chi^2(96)$ is not tabulated, we interpolate roughly and use 126.97, the average of 124.12 and 135.81, as the critical value of $\chi^2(96)$.

¹ According to DEET (1989) and DETYA (1998), PhD enrolments in all Australian universities in Economics, Business and Administration increased from 339 in 1989 to 2265 in 1998.

TABLE 1
Institutional Affiliation of Students

University	Number of students participating in conference held in										Total
	1987	1988	1989	1991	1992	1993	1994	1995	1996	1997	
Australian National University	4	4	4	7	5	4	3	4	4	5	44
Bond University								2			2
Curtin University of Technology						1				1	2
Deakin University							1				1
Griffith University				2			1	1		2	6
Hitotsubashi University		1									1
La Trobe University	3	1	1		1	1	3		3		13
Macquarie University	2			1	1				1		5
Monash University	1	1	2	4	1	3	1	5	3	4	25
Murdoch University								2			2
Royal Melbourne Institute of Technology						1			1	1	3
University of Adelaide	2		1		1	2	1	1			8
University of Auckland					1	1	1	2		1	6
University of Canterbury		1		1	1						3
University of Melbourne	1	1	2			3	1	2	1	2	13
University of Newcastle	1	1					1			1	4
University of New England	3	1	1		2	2	1	1	1	1	13
University of New South Wales	2	1	3	1	2	2	2	1	2	1	17
University of Nottingham									1	1	2
University of Queensland	1	1	1	1	1		1		1	2	9
University of Southern Queensland							1		1	1	3
University of Sydney	1	1	1	1	2	2	4	1	1	3	17
University of Tasmania				1			1	2		1	5
University of Technology Sydney					1			1			2
University of Western Australia	1	1	1	2	1	1		3	1	5	16
University of Western Sydney						2					2
University of Wollongong							1		1		2
Victoria University of Wellington									1		1
Total	22	15	17	21	20	25	24	28	23	32	227

III Ethnicity and Academia

As mentioned above, over the last decade, enrolments in PhD programs in economics and business have surged at many Australian universities. From where have these students come? What percentage of them are from other countries? In an attempt to gain some insights on this, the first row of Table 4 presents the number of students involved in the conferences

with non-Anglo-Saxon names. While this is, of course, an imperfect measure of the source of students, the broad picture still seems clear enough. In two years, nominally-non-Anglo-Saxons accounted for at least 70 per cent of all students, while the average over the ten years is a little above 50 per cent. As can be seen from the second and third rows of Table 4, the number of discussants and chairpersons in this

TABLE 2
Conference Papers by Subject and Source

Subject	University																				Total								
	ANU	Adelaide	Auckland	Bond	Canterbury	Curtin	Deakin	Griffith	Hitosubashi	La Trobe	Macquarie	Melbourne	Monash	Murdoch	Newcastle	UNE	Nottingham	UNSW	Queensland	RMIT		USQ	Sydney	Tasmania	UTS	UWA	UWS	Wellington	Wollongong
1. Macroeconomics	5	1																				7				1			25
2. Microeconomics	5	3	1		1		2		3	3	5	8	1	3	1	3	3	3	1	1	1	1	1	3	2	1	1	1	48
3. International Trade	8				1				1			1				1						2						16	
4. International Finance	2						2	1			1	1	1			1	1	1	2			1	1	1	2	1		15	
5. Econometrics					3		1	1			9					3						2			3			22	
6. Finance	2	2	2		1	1					4	2					6	2	2	1	1	1	2	4	1		1	33	
7. Labour Economics	15	1					2	2	1	2				1			1				1	1		3				29	
8. Development Economics	6	4					3	2					1	5	1						1	1		1				24	
9. Other	1	2					2						2	1	2				1		1	1	1	1	1			15	
Total	44	8	6	2	3	2	1	6	1	13	5	13	25	2	4	12	2	17	9	3	3	17	5	2	16	2	1	2	227

TABLE 3
Analysis of Specialization
(Per cent)

Subject	University													Total
	ANU	Adelaide	Auckland	Griffith	La Trobe	Melbourne	Monash	UNE	UNSW	Queensland	Sydney	UWA	Other	
	<u>Actual</u>													
1. Macroeconomics	2.2	.4			.4	.9	.9		1.8	.4	3.1		.9	11.0
2. Microeconomics	2.2	1.3	.4	.9	1.3	2.2	3.5	1.3	1.3	1.3	.4	.9	4.0	21.1
3. International Trade	3.5				.4		.4		.9		.9		.9	7.0
4. International Finance	.9			.9		.4	.4		.4	.9	.4	.9	1.3	6.6
5. Econometrics				.4	.4		4.0	1.3			.9	1.3	1.3	9.7
6. Finance	.9		.9	.4		1.8	.9		2.6	.9	.4	1.8	4.0	14.5
7. Labour Economics	6.6		.4		.9	.4	.9		.4		.4	1.3	1.3	12.8
8. Development Economics	2.6	1.8			1.3			2.2			.4	.4	1.8	10.6
9. Other	.4		.9		.9			.9		.4	.4	.4	2.2	6.6
Total	19.4	3.5	2.6	2.6	5.7	5.7	11.0	5.7	7.5	4.0	7.5	7.0	17.6	100.0
	<u>Expected under independence</u>													
1. Macroeconomics	2.1	.4	.3	.3	.6	.6	1.2	.6	.8	.4	.8	.8	1.9	11.0
2. Microeconomics	4.1	.7	.6	.6	1.2	1.2	2.3	1.2	1.6	.8	1.6	1.5	3.7	21.1
3. International Trade	1.4	.2	.2	.2	.4	.4	.8	.4	.5	.3	.5	.5	1.2	7.0
4. International Finance	1.3	.2	.2	.2	.4	.4	.7	.4	.5	.3	.5	.5	1.2	6.6
5. Econometrics	1.9	.3	.3	.3	.6	.6	1.1	.6	.7	.4	.7	.7	1.7	9.7
6. Finance	2.8	.5	.4	.4	.8	.8	1.6	.8	1.1	.6	1.1	1.0	2.6	14.5
7. Labour Economics	2.5	.5	.3	.3	.7	.7	1.4	.7	1.0	.5	1.0	.9	2.3	12.8
8. Development Economics	2.0	.4	.3	.3	.6	.6	1.2	.6	.8	.4	.8	.7	1.9	10.6
9. Other	1.3	.2	.2	.2	.4	.4	.7	.4	.5	.3	.5	.5	1.2	6.6
Total	19.4	3.5	2.6	2.6	5.7	5.7	11.0	5.7	7.5	4.0	7.5	7.0	17.6	100.0
	<u>Actual less expected</u>													
1. Macroeconomics	.1	.1	-.3	-.3	-.2	.3	-.3	-.6	.9	.0	2.3	-.8	-1.1	.0
2. Microeconomics	-1.9	.6	-.1	.3	.1	1.0	1.2	.1	-.3	.5	-1.1	-.6	.2	.0
3. International Trade	2.2	-.2	-.2	-.2	.0	-.4	-.3	-.4	.4	-.3	.4	-.5	-.4	.0
4. International Finance	-.4	-.2	-.2	.7	-.4	.1	-.3	-.4	-.1	.6	-.1	.4	.2	.0
5. Econometrics	-1.9	-.3	-.3	.2	-.1	-.6	2.9	.8	-.7	-.4	.2	.6	-.4	.0
6. Finance	-1.9	-.5	.5	.1	-.8	.9	-.7	-.8	1.6	.3	-.6	.7	1.4	.0
7. Labour Economics	4.1	-.5	.1	-.3	.1	-.3	-.5	-.7	-.5	-.5	-.5	.4	-.9	.0
8. Development Economics	.6	1.4	-.3	-.3	.7	-.6	-1.2	1.6	-.8	-.4	-.4	-.3	-.1	.0
9. Other	-.8	-.2	.7	-.2	.5	-.4	-.7	.5	-.5	.2	-.1	.0	1.0	.0
Total	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

TABLE 4
Participants with Non-Anglo-Saxon Names
(Number; percentage of total in parentheses)

Group	Year of conference										Total
	1987	1988	1989	1991	1992	1993	1994	1995	1996	1997	
Students	13 (59)	11 (73)	8 (47)	12 (57)	10 (50)	13 (52)	12 (50)	11 (39)	16 (70)	17 (53)	123 (54)
Discussants	3 (18)	4 (25)	3 (17)	3 (14)	0 (0)	2 (8)	3 (13)	8 (28)	4 (17)	10 (32)	40 (18)
Chairpersons	1 (11)	1 (11)	2 (22)	4 (33)	2 (17)	3 (20)	1 (8)	5 (33)	2 (17)	4 (27)	25 (21)
Total	17 (35)	16 (40)	13 (30)	19 (35)	12 (23)	18 (28)	16 (26)	24 (33)	22 (38)	31 (40)	188 (33)

category is much smaller, on average about 20 per cent.³ This information is plotted in Figure 2.

In subsequent years (decades?), will the ethnicity of Australian academia change substantially so that the number of discussants and chairpersons with non-Anglo-Saxon (NAS) backgrounds increases? What proportion of foreign PhD students will be hired by Australian universities? Currently, NASs account for a small proportion of academic staff at most Australian universities, but it would seem that this is increasing. The large representation of NASs in the population of PhD students probably implies that the future profile of academics will involve many more non-Anglo-Saxons. Such a broadening of the background of academics is to be welcomed.

³ However, as indicated by the following information, caution is needed in interpreting these results. In 1997, the Department of Economics at UWA had 19 PhD students, 58 per cent of whom had non-Anglo-Saxon (NAS) names. However, only 26 per cent of the total were in fact foreign students. Accordingly, the NAS measure in this situation overstates the number of foreign students by a factor of two. On the other hand, the NAS rule, when applied to academic staff, surely overstates the number who are not Australian citizens (or permanent residents) by a factor larger than two. While conclusions obviously cannot be too precise when using the NAS measure, it is still the case that the evidence indicates that the proportion of foreign students is much greater than the corresponding proportion for academic staff, perhaps larger by a factor of more than two.

IV The Nature of PhD Studies⁴

To reveal more about the backgrounds of PhD students, the process of completing a PhD and what it might lead to, the 73 students who participated in the conferences held in 1987-91 were surveyed. It should be noted that these students are unlikely to represent a random sample of the population of all PhD students as the conferences tend to attract the better students. Nevertheless, the survey results could provide some guidance in setting benchmarks for PhD studies. Table 5 presents an overview of the characteristics of the survey. As can be seen, the vast majority are full-time males working on applied topics. The average age at commencement of PhD studies is about 29 years.

As indicated in Figure 3, according to the students surveyed, on average the most important single factor determining the choice of university is the reputation of the academic staff. The availability of a scholarship is also important, while the opportunity to do part-time teaching is unimportant. The role of foreign students is likely to be significant here as many are unable to undertake PhD studies without scholarship support; and as it would probably be unusual for foreign students to undertake teaching during the early part of their studies, this factor is understandably unimportant to these students.

The students were asked 'What support, apart from direct financial support, is required for a successful PhD?' As shown in Figure 4, the supervisor is the most important source of support,

⁴ This section draws on Chenhall and Clements (1995).

FIGURE 1

Unexplained Performance by Subject and Source

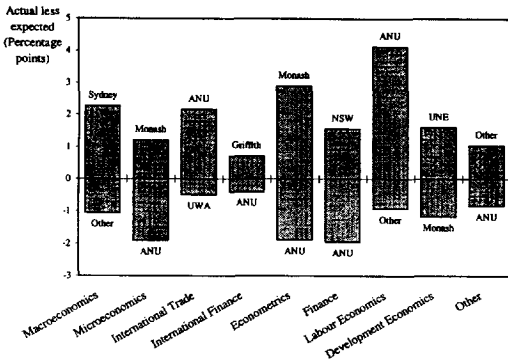


FIGURE 2

Participants with Non-Anglo-Saxon Names

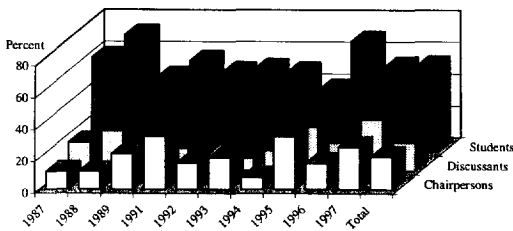
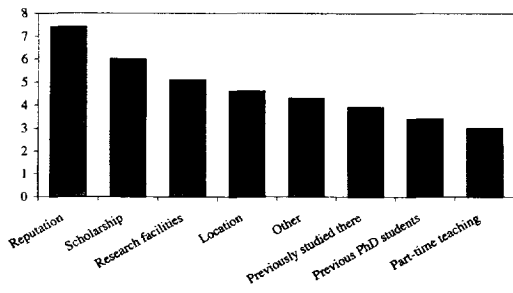


FIGURE 3

Choice of University (1-10 Scale)



followed by a good library and a department which is active in research. A realistic objective for most PhD students would be to publish something from their theses. Is this objective achieved? Figure 5 gives the distribution of publications.⁵

⁵ Publications are defined here as journal articles, books and chapters in books, all equally weighted. Note that in view of the time taken by the publication

TABLE 5

Characteristics of the Sample

Number of respondents	51
Sex	
Male	84%
Female	16%
Type of enrolment	
Full-time	80%
Part-time	20%
Type of thesis	
Applied	73%
Theoretical	22%
Both	6%
Completed PhD	63%
With research experience prior to enrolling in PhD	80%
Average age at commencement of PhD	29.3 years

As is often the case with publications, this distribution is highly skewed; it has a mode of zero, mean of almost one and a maximum of six. Of the 51 respondents, 22 published something from their theses. The mean number of publications for those who publish is 2.2.

Figure 6 gives a frequency distribution of completion times (actual and expected). The minimum completion time is 24 months, the average 46 months and the maximum is 85 months. Interestingly, most PhD scholarships now provide support for only three years, with six additional months if a case can be made why it is necessary, giving a maximum period of support of 42 months. The determinants of completion time can be analyzed by means of a dummy-variable regression. The time taken to complete (either actual or expected) is regressed on a set of dummy variables representing the characteristics of the student and the thesis topic and the results are contained in Figure 7. As can be seen, on average (i) females take two months longer to complete (but note that this coefficient is insignificant); (ii) students writing on theoretical topics complete eight months sooner; (iii) those who are above-average age complete six months later; and (iv) full-time study reduces the completion time by eight months.

process, relatively more publications would tend to come from those students who submitted their theses longer ago. Accordingly, as the recorded publications miss subsequent publications from the more recently completed PhDs, our figures represent a lower bound.

FIGURE 4

Support Required for a Successful PhD
(1-10 Scale)

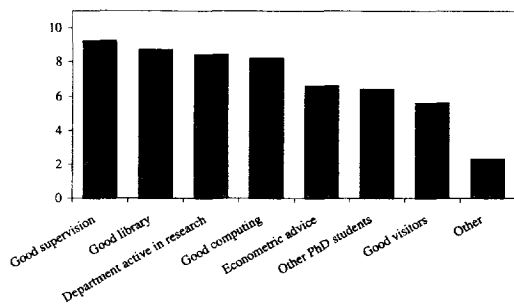


FIGURE 5

Frequency Distribution of Publications from PhD Theses

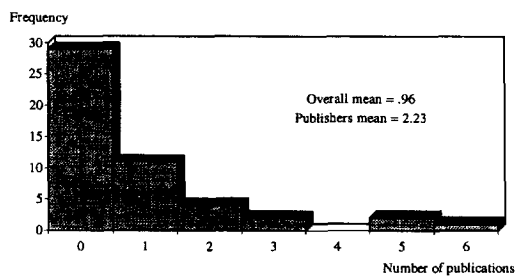


FIGURE 6

Frequency Distribution of Completion Times

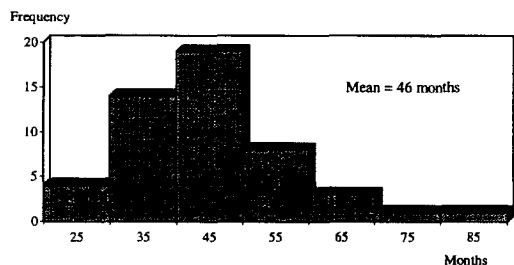


FIGURE 7

Completion Time by Various Characteristics
(Months; t-values in parentheses)

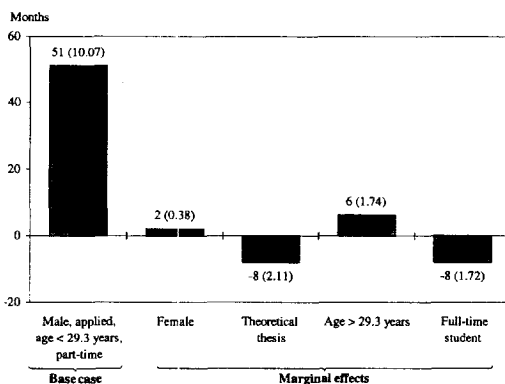
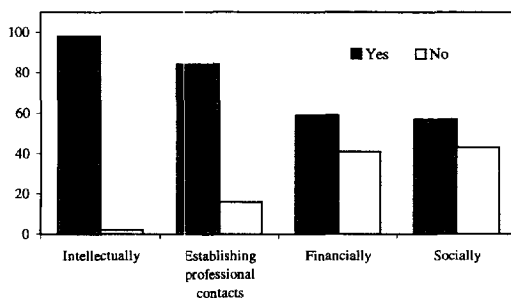


FIGURE 8

Was the PhD Worthwhile?
(Per cent)



not have preferred to go to another university. This apparently high level of satisfaction probably reflects to a certain extent the attitudes of the better students, towards whom the survey is slanted.

V Concluding Comments

In this paper, we have presented an overview of the first ten years' experience with the PhD Conference in Economics and Business. Results from a survey of students involved include the following: (i) The most popular thesis topics are of applied nature; (ii) the reputation of academic staff is the most important factor determining the choice of university by a prospective PhD student; (iii) the supervisor is the most important source of support for a successful PhD; (iv) the mean number of publications emanating from PhD theses is about one; (v) on average, it takes nearly

What do students gain from PhD studies? The answers to the question 'Was the PhD worthwhile?' are summarized in Figure 8. Interestingly, the vast majority felt that the PhD was worthwhile intellectually and in terms of establishing professional contacts. However, there is less agreement on the financial and social returns. Finally, 75 per cent of the respondents said that, in retrospect, they would

four years to complete a PhD; and (vi) the vast majority of respondents felt that the PhD was worthwhile intellectually, but less worthwhile financially.

Over the last decade, the PhD conferences have attracted more than 200 students. It can be expected that the conference series will continue to be a major forum for prominent, young economists to gain exposure of their research. As more

students from overseas universities attend the conference, its influence will go beyond Australian shores.

APPENDIX

Tables A1 and A2 present some further information on the conferences.

TABLE A1
Details of the Conferences

Year	Date	Number of students involved	Number of discussants involved	Number of institutions involved (students and discussants)	Organizing institutions	Convener	Co-ordinator	Location
1987	Nov. 1-3	22	17	19	Economic Research Centre, UWA	K. Clements	A. Webber	Perth
1988	Nov. 6-8	15	16	20	Economic Research Centre, UWA	K. Clements	A. Webber	Perth
1989	Nov. 5-7	17	18	19	Economic Research Centre, UWA	K. Clements	A. Webber	Perth
1991	Nov. 6-8	21	21	16	1. Economic Research Centre, UWA 2. Centre for Economic Policy Research, ANU	K. Clements	D. Chenhall	Perth
1992	Nov. 3-5	20	20	18	1. Centre for Economic Policy Research, ANU 2. Economic Research Centre, UWA	A. Pagan	A. Ritchie	Canberra
1993	Nov. 3-5	25	25	19	1. Economic Research Centre, UWA 2. Centre for Economic Policy Research, ANU 3. Research Centre in Accounting and Finance, UWA	K. Clements	D. Chenhall	Perth
1994	Dec. 7-9	24	24	21	1. Centre for Economic Policy Research, ANU 2. Economic Research Centre, UWA	A. Pagan and S. King	R. Carson	Canberra
1995	Nov. 8-10	28	29	17	1. Economic Research Centre, UWA 2. Centre for Economic Policy Research, ANU 3. Department of Accounting and Finance, UWA	K. Clements	D. Chenhall	Perth
1996	Nov. 7-8	23	23	22	1. Centre for Economic Policy Research, ANU 2. Economic Research Centre, UWA	S. King	R. Carson	Canberra
1997	Nov. 5-7	32	31	23	1. Economic Research Centre, UWA 2. Centre for Economic Policy Research, ANU 3. Department of Accounting and Finance, UWA	K. Clements	F. Madsen	Perth
	Total	227	224					

TABLE A2
Special Lectures and After-Dinner Speeches

Year	Name	Institution	Topic	Published as
1987	1. Jonson, P. 2. Hyde, J.*	Reserve Bank of Australia IPA	Professional Economists in Business and Government Democracy and the Market for Ideas	Jonson (1987)
1988	1. Gregory, R. 2. Giles, D. 3. Morgan, D.*	Australian National University University of Canterbury Commonwealth Treasury	Jobs and Gender: A Lego Approach to the Labour Market Recent Developments in Econometrics: Lessons for Applied Economists Economists in Government	Gregory (1991) Giles (1991) Morgan (1988)
1989	1. Powell, A. 2. Shann, E.*	University of Melbourne Access Economics	The Reconciliation of Computable General Equilibrium and Macroeconomic Modelling: Grounds for Hope? Economics as a Religion	Parsell <i>et al.</i> (1989) Shann (1990)
1991	1. Blundell-Wignall, A. 2. Gregory, R.*	Reserve Bank of Australia Australian National University	The Relevance of Modern Macroeconomics to Policy Making in OECD Countries Job Creation in the Male and Female Workforces in Australia	Blundell-Wignall (1991) Gregory (1993)
1992	1. Creedy, J. 2. Cole, T.*	University of Melbourne Australian Treasury	Income Distribution within a General Equilibrium Framework Challenges as an Economist in the Public Sector	Creedy (1994)
1993	1. Hughes, H. 2. Mundell, R. 3. Stoekel, A.*	Australian National University Columbia University Centre for International Economics	The Lessons of Development Regionalism vs Multilateralism in the World Economy The Experience with Deregulation in Mexico and New Zealand and Its Implications for Australia	Hughes (1993)
1994	1. McKibbin, W.	Australian National Economics	Carbon Taxes and the World Economy	McKibbin and Wilcoxon (1997)
1995	1. Hilmer, F. 2. Powell, A.*	University of New South Wales Monash University	Competitive Policy: Underlying Ideas and Issues Terminal Omphaloskepsis? Or, Are Theorists Getting too Much of the Action in Economics?	Hilmer (1995)
1996	1. Chapman, B. 2. Harper, I.*	Australian National University	Economics Research and Public Policy Making: HECS as a Case Study Directions and Trade-offs—the Future of Australian Academic Life	Chapman (1997)
1997	1. Smith, T. 2. Dixon, P.*	University of Melbourne University of New South Wales Monash University	The Current State and Future Directions of Research in Finance Where Do Old TVs Go?	

Note: An asterisk (*) indicates an after-dinner lecture.

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