

M O N A S H U N I V E R S I T Y

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Annual Report 1987



Monash University  
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For and on behalf of the council  
G H Lush  
Chancellor

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## THE COUNCIL

Members of council as at 31 December 1987

### Members ex officio

The Honourable Sir George Hermann Lush LLM *Melb.* — *Chancellor*  
Malcolm Ian Logan BA PhD DipEd *Syd.* FASSA — *Vice-Chancellor*

### Appointed by the Governor in Council to represent the Parliament of Victoria

The Honourable James Vincent Chester Guest MA *Oxon.* MBA *Melb.* Barrister-at-Law of Lincoln's Inn Barrister-at-Law *Vic.* MLC  
Gerard Marshall Vaughan ARMIT DipEd SCV BE MEngSc PhD ARACI MP  
Thomas William Wallace MP

### Appointed by the Governor in Council to represent the interests of agriculture, the professions, industry and commerce

James Arnold Hancock OBE BCom *Melb.* FCA AASA  
Geoffrey Alistair Knights MA PhD *Cantab.*  
Jan Eric Kolm AO EngChem *Prague Tech. Uni.* FRACI FAIM FTS  
Rachelle Anne Lewitan BA LLB(Hons) *Melb.*  
Helen Marion Nugent BA PhD *Qld* MBA *Harv.*  
Vacant

### Elected by graduates of the University

Anthony Henry May BEc LLB  
Kay Christine Lesley Patterson BA *Syd.* PhD DipEd MAPsP

### Elected by the faculties

Marilyn Lee Lake MA *Tas.* PhD (*Arts*)  
June Margaret Hearn MA PhD *Melb.* (*Economics and Politics*)  
Margaret Bristow Gilchrist MA PhD *Melb.* (*Education*)  
Robert John Neil Kinsman BMEchE *Melb.* CEng FIMEchE MAustIMM (*Engineering*)  
The Honourable Mr Justice Robert Clive Tadgell LLB *Melb.* (*Law*)  
Anthony Robert Moore MB MS *Melb.* MA *Cantab.* FRACS (*Medicine*)  
Hugh Alexander Grayson FMTC CChem FRACI FIDA FAIM (*Science*)

### Elected by the professors

David Alistair Kemp BA LLB *Melb.* PhD *Yale*  
William Henry Melbourne BE *Syd.* PhD DIC *Lond.* FIEAust FRAeS FRGS  
Clive Trevor Probyn MA *Virginia* BA PhD *Nott.*  
Bruce Oswald West BSc *Adel.* PhD *Adel. and Cantab.* FRACI

### Elected teaching staff other than the professors

Peter LePoer Darvall BCE *Melb.* MS *Ohio State* MSE MA PhD *Prin.* DipEd MIEAust  
William Anthony Howard MCom *Melb.* PhD *C'nell*  
Jennifer Strauss BA *Melb.*

### Appointed by the Minister for Education

Ronald George Ritchie BMEchE DipEd *Melb.* DipMechE *Caulfield TC* MAdmin FIEAust MACE

### Co-opted

The Honourable Joseph Ezra Isaac Ba BCom *Melb.* PhD *Lond.* FASSA — *Deputy Chancellor*  
Donald Graham Paech FCIS FASA FAIM FID  
Dorothy Ruth Pizzey BA BEd *Melb.* FACE  
Vacant

### Co-opted from among the deans of the faculties

William Ronald Aylett Muntz BA DPhil *Oxon.* FRSE  
William Angus Sinclair MCom *Melb.* DPhil *Oxon.* FASSA



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### **Elected by the non-academic staff**

Vacant

### **Elected by the students of the University**

Peter Antoni Clarke

Anthony Charles Holmes

Peter Anton Talbot Williamson BSc *Witw.* MEnvSc

Secretary: Mr M D Watson

### **Changes in membership of council during 1987**

#### *Members who retired or resigned from office during 1987*

Mr J S Bender (non-academic staff) 1986-87

Mr P A Clarke (undergraduate and diploma students) 1985-87

Dr K T H Farrer (coopted) 1979-87

Dr M B Gilchrist (Faculty of Education) 1987

Mr E J Hann (Parliament of Victoria) 1984-87

Mrs W McDonell (Faculty of Education) 1984-87

Sir James McNeill (Governor in Council) 1969-87\*

Professor I J Polmear (professors) 1979-87

Mr I T Sheehy (postgraduate students) 1985-87

Professor W A Sinclair (coopted deans) 1985-87

\* died in office

#### *Members re-elected or re-appointed for a further term of office during 1987*

Dr P LeP Darvall (non-professorial teaching staff) 1987-91

Mr H A Grayson (Faculty of Science) 1987-91

The Honourable J V C Guest (Parliament of Victoria) 1987-91

Mr J E Kolm (Governor in Council) 1987-91

Mrs W McDonell (Faculty of Education) 1987-91

Dr A R Moore (Faculty of Medicine) 1987-91

Mr D G Paech (coopted) 1987-91

Professor C T Probyn (professors) 1987-91

Dr G M Vaughan (Parliament of Victoria) 1987-91

#### *Members elected or appointed to council during 1987*

Dr M B Gilchrist (Faculty of Education) 1987-90

Mr C J McLeod (undergraduate and diploma students) 1987-89

Professor W H Melbourne (professors) 1987-91

Professor W R A Muntz (coopted dean) 1987-88

Dr H M Nugent (Governor in Council) 1987-89

Mr T W Wallace (Parliament of Victoria) 1987-91

Mr P A T Williamson (postgraduate students) 1987-89

#### *Vacancies in the membership of council as at 31 December 1987*

One Governor in Council/appointee nominated by the Victorian Trades Hall Council

One elected representative of the Faculty of Education

One coopted member

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The Monash University Council had a busy year in 1987, spurred on by the impetus generated by a new Vice-Chancellor and by indications of the most significant changes in higher education in Australia since the University was founded. At the first of ten meetings held during the year, in the months of March to December inclusive, Council welcomed to its membership Professor M I Logan in his capacity as the University's fourth Vice-Chancellor. Professor I J Polmear was also welcomed in his new capacity as Deputy Vice-Chancellor. At the last of its meetings for the year, Council began consideration of the major changes in the structure and management of higher education in Australia foreshadowed by the Government in a policy discussion paper released by the Federal Minister for Employment, Education and Training.

Council noted with pleasure at its March meeting the creation of the University's former Vice-Chancellor, Professor R L Martin, as an Officer in the Order of Australia in the Australia Day Honours List. At the same meeting, however, Council was deeply saddened to hear of the sudden death on 12 March of Sir James McNeill,

### **REPORT OF THE CHANCELLOR**

The Honourable Sir George Lush LL.M. *Melb.*



its longest serving member and one of the University's staunchest supporters. An obituary to Sir James adopted by Council as its April meeting is appended to this report. On 5 September, Monash lost a further link to its early foundations with the death of Lady Hazel Blackwood, widow of Sir Robert Blackwood, the Chairman of the Interim Council and the University's first Chancellor.

In my last report, I mentioned the uncertainty surrounding the imminent release of a report from a committee of review established by the then Victorian Minister for Education into the composition of councils of Victorian universities. The committee's draft report became available in early 1987 and contained a number of recommendations which would, if implemented, bring about uniformity in the composition of the councils of the State's four universities and impose upon those councils a much higher level of accountability to the State Government. In its response to the committee, the Monash University Council endorsed some of the recommendations of the draft report but expressed strong misgivings about others, particularly those that appeared to lead in the direction of more ministerial control over the membership of councils and the limiting of the capacity of councils to govern their respective institutions without undue impediment. Other universities also indicated opposition on similar lines, and a final report of the committee has now been circulated.

At its December meeting Council received and endorsed with enthusiasm two important documents submitted by the Vice-Chancellor; a draft version of *The Monash plan — a strategy for the future*, and an expanded commentary and presentation of the 1988 budget. Both documents were the culmination of an intensive program of consultation and debate embarked upon by Professor Logan during the first year of his Vice-Chancellorship that involved the whole University community. They are testament to Professor Logan's strong view that the University's planning and budgetary operations need to be firmly linked, and that the University's future directions need to be guided by a sound prescription that has the broad support of those who will be expected to be involved in its ongoing development.

Of the extensive business conducted by Council in the course of the year, I mention the following matters which attracted protracted debate at one or more of its meetings: the establishment of a new occupational health and safety structure for the University; the securing to the University of adequate clinical teaching facilities in affiliated hospitals to meet needs of the Faculty of Medicine; a proposal to amalgamate the departments of Botany and Genetics; a review of the future viability and governance of the Graduate School of Environmental Science; the necessity to renegotiate some of the terms under which the University is marketing overseas its know-how in IVF technology; and various subjects related to equal opportunity provisions.

In May, the four Victorian universities, through the Victorian Vice-Chancellors' Committee, entered into an agreement on cooperation and academic exchange with Chengdu University of Science and Technology in the People's Republic of China. During the year, Council also approved the entering into of affiliation agreements with the Mental Health Research Institute of Victoria and the National Vision Research Institute. In addition, Council approved an up-grading to full teaching hospital status of its existing affiliation agreement with Box Hill Hospital, to take effect from 1 January 1989.

At its December meeting, Council conferred the title of Emeritus Professor upon Professor L Bodi, Professor U G E Hammarstrom, and Professor M D Neale to mark their retirement as professors of the University at the end of the year. Also, at graduation ceremonies held during the year, Council conferred honorary degrees upon Nigel John Gray, Margaret Elizabeth Hamer, Kylie Tennant, Jack Leonard Davis, James Douglas Butchart, and David Woolley.

Finally, Council agreed to meet at six-weekly intervals from the beginning of 1988 in concert with the other major deliberative bodies of the University in the interests of greater efficiency and less call on members' time.

### **Sir James Charles McNeill**

At its meeting in March 1986, the Council of Monash University was pleased to acknowledge the creation of Sir James McNeill as a Companion in the Order of Australia. Coming as it did on top of the many other honours bestowed on this modest, hard-working man in the course of his remarkable career, it seemed a fitting tribute to the longest serving member of the Monash University Council.

In May of the same year, as part of its Silver Jubilee celebrations, Council again recognised the achievements of Sir James McNeill by conferring upon him the degree of Doctor of Laws *honoris causa*. The citation accompanying this award, which is documented elsewhere in the University's records, lists the great contribution made by Sir James to the life and affairs of Monash University since his first appointment to Council in August 1969.



The following December, at its last meeting for the year, Council noted with acclamation the minute of appreciation adopted by the Finance Committee commemorating the retirement of Sir James McNeill as its chairman after thirteen and a half years of dedicated service and inspired leadership.

It was to his great credit that Sir James was persuaded to remain an active member of Council long after his demanding work-load and failing health should have dictated otherwise. His service to the University came to an end, however, with his sudden death in the early hours of Thursday 12 March. His passing was noted with great sadness by Council four days later at its first meeting for the year on 16 March. Members stood in silence for one minute in memory of this man who had been such a driving force among them.

Monash will continue to bear the stamp of Sir James McNeill for years to come through the influence he had on its affairs in so many areas, not the least of which is the revamped senior management structure of the University, which largely reflects implementation of the recommendations of the McNeill Report into the top echelons of the central administration. He was also instrumental in bringing to Council recommendations for the filling of vacancies in several of these senior positions in recent years.

With the death of Sir James McNeill, Monash University lost one of its staunchest supporters and greatest friends.

As in the past, the last year at Monash University has been a busy one. Right across the campus there has been a considerable variety of activity in teaching and research, and it is both difficult and unfair to single out some activities for more detailed comment.

Nineteen eighty-seven stands out as a special year in one sense, in that the University community took time to stand back, assess its progress and begin in a more deliberate way to plan for the future. The process to develop this strategy began with a visit to all academic and administrative departments, and was followed up by close consultation with professors and deans, reinforced by some detailed work on our student market and on our internal operations. Following the deliberation of the Planning Committee of Council, the Development Committee of the Professorial Board and each faculty board, a document was produced called *The Monash strategy*.

This document identifies some ways forward. It outlines some guidelines and principles which will be used in more detailed planning of particular sections of the University. The spirit of the thinking in this document was incorporated in a detailed paper on the budget — *Monash University budget 1987* — which shows perhaps for the first time the principles upon which detailed allocations to separate parts of the University were made.

In this way during 1987 a step was taken to bring resource decisions into line with some broad strategic directions. This same thinking has been applied in some faculties and was applied to research management. A decision was taken at the beginning of 1987 to hold back a small proportion (a mere 1 per cent) of the budget, to be reallocated to larger, longer time horizon research projects. Activities that were funded — including a Public Sector Management Institute and a Centre for European Studies — are those that give us the chance to establish a unique identity in our research endeavours.

The deliberate attempt to think out the direction of the University, sensitive to the great values of scholarship and research, stands out as a major achievement in 1987. One of the important elements has been a greater awareness of the outside community, and a greater effort to tailor our activity to the needs and interests of the community. This has occurred with respect to students (and 1987 saw a major expansion in a Student Recruitment Service) and our research. An example of the latter was the establishment of a Road Accident Research Centre, developed in response to a State Government initiative on what is obviously a pressing community problem. This conscious strategy to work more closely with the community is reflected in the establishment of an Office of External Relations which will have a special responsibility for alumni affairs. Contact with alumni began in earnest during 1987, with several departments or faculties launching fledgling alumni associations.

The Monash Medical Centre was officially opened in 1987, the outcome of a difficult process, but one that puts Monash in a good position to widen and deepen its already well-established record in medical research. It also provided a focus for the Monash Medical School, which was reinforced during 1987 by the signing of agreements with other hospitals in the south and eastern suburbs, and the decision to transfer part of Prince Henry's Hospital to the Clayton site. This will provide a substantial facility close to the centre of the mass of population of Melbourne.

## REPORT OF THE VICE-CHANCELLOR

Professor M I Logan BA PhD DipEd Syd. FASSA





Regrettably there have been no other major additions to the space available on campus. Nineteen eighty-seven did see the opening of a small new building, constructed with Monash's own resources, but that has had only a small impact upon the great demand for space that exists across the campus. In effect the University is operating at capacity with little or no room to move; our ability to take initiatives that could capitalise upon our leadership in some areas is seriously constrained by this fact. Also our ability to meet new government targets in the production of graduates will be limited by a lack of space, something that has begun to impact on some courses in a severe way already.

The year ended with the release of a Government Policy Discussion document, outlining new approaches to the management of tertiary education. Monash is well placed to take advantage of the openings created in the proposed policies. It looks forward to the opportunity to contribute through its teaching and research to the objectives that the Government has set for tertiary education.

## DEVELOPMENT AND ADMINISTRATION **Site and buildings**

In 1987, projects completed included the new Gallery Building, construction of the environmental fluid mechanics laboratory for Mechanical Engineering, extensions to the Alexander Theatre and relocation of the Queen Victoria Monash teaching facility.

Work in progress includes the relocation of Buildings Branch, Administration and Central Services, and the Monash Science Park project.

### **University publishing**

The Monash University Publications Committee met on five occasions during 1987. It considered seven requests for financial assistance towards the publication of works by Monash authors, agreeing to support four of them. The total funds thereby committed came to just over \$7 500. Actual payments made in 1987 (arising from commitments made in previous years) amounted to \$8 128.00. Five volumes produced with the assistance of the committee were published in the course of the year.

The Publications Section produced the customary official publications of the University and provided Monash authors with a variety of publishing services including copy editing, book design and production, and advice on matters relating to negotiations with commercial publishers and printers.

### **Legislation**

Five amending Statutes, three of which are required for the new meeting cycle to be introduced in 1988, and thirty-six new or amending regulations were made in 1987.

Regulations for new courses and degrees included: Master of Management, Bachelor of Information Systems, Diploma in Business Systems and Master of Bioethics. The regulations governing the degree of Doctor of Philosophy were completely re-drafted.

### **Occupational health and safety**

The Occupational Health and Safety Branch (OHSB) was formed in July 1987 subsequent to the appointment of Dr C Tillman as occupational health and safety manager in February 1987. The safety officer, the radiation protection officer and the occupational health nurse became part of the branch. The formation of the branch was one component of the introduction of a new occupational health and safety organisational structure at Monash.

At the end of 1987 the University Safety Committee was dissolved and the decision taken by Council to replace it with an Occupational Health and Safety Policy Committee. Council also approved the establishment of a series of zone OHS committees at faculty or departmental level. Negotiations between the University and the staff association and trade unions on the formation of designated work groups neared completion with an agreement expected to be finalised early in 1988.

During 1987 the emphasis in occupational health shifted from a purely clinical role to one which placed greater emphasis on rehabilitation. There was a significant decrease in the number of cases of overuse syndrome although the most frequently occurring category of injury was still strain injury.

Major OHS projects during 1987 were the construction of a new radioactive waste store in the Faculty of Medicine, initiation of a major review of all fume cupboards and laboratory ventilation systems and an evaluation of cooling towers in relation to risk of Legionnaire's disease. All of these projects involved close cooperation with



the Buildings Branch. Less reliance was made on ergonomics consultants for work place assessments with most of this work instead being done by OHSB staff.

Two incidents of major concern occurred: a gas leak into a plant switchroom at the halls of residence and a fire in a resident's room also at the halls. Emergency procedures were initiated in both instances by University staff pending the arrival of external emergency services. Fortunately, the incidents were contained, no injuries resulted and damage was minimal.

During 1987, staff recruitment continued at the low level of previous years. With a strength of 3 057 equivalent full-time staff at the end of April 1987, total staffing has not altered significantly from the 1986 total of 3 023, although there is a marginal upward trend from the 1985 total of 3 004.

The number of full-time and fractional staff, expressed in terms of full-time equivalents, as reported to the Commonwealth Tertiary Education Commission in the annual statistics return of 30 April 1987, is shown in table 1.

Table 1: Equivalent full-time staff

	Professor/dean	Reader/associate professor	Senior lecturer	Lecturer	Principal tutor	Senior tutor	Tutor	Total
Arts	17	24	82	51	1	5	24	203
BCOPS	13	13	38	19	2	9	36	131
Education	5	5	32	6	—	4	3	55
Engineering	8	19	38	12	—	8	2	87
Law	5	8	22	12	—	5	5	58
Medicine	22	21	67	23	1	23	1	159
Science	21	36	65	28	—	7	13	170
Other	—	—	1	3	—	—	—	4
Total	92	126	346	153	4	61	84	866

The recruitment pattern of teaching staff in 1987 is shown in table 2. There were also thirty-seven senior tutors and sixty-two tutors, many employed at a fraction of full-time, who took up their appointment in 1987. A number of professorial appointments were made during the year. Chairs filled were those of Professor J R Anderson (Honorary Chair, Chemistry), Professor R C Atkins (Honorary Chair, Medicine), Professor A Baklien (Joint ICI Australia/Monash University Chair of Industrial Chemistry), Professor N Christophidis (Geriatric Medicine), Professor S M Cordner (Forensic Medicine), Professor J W Funder (Honorary Chair, Medicine), Professor L M Goldschlager (Computer Science), Professor J A Hay (Dean, Faculty of Arts), Professor G S Lister (Earth Sciences), Professor M E Poole (Education), Professor F A Trindade (Law), Professor M L Wahlqvist (Medicine), and Professor C R Williams (Law). Dr P LeP Darvall (Dean, Faculty of Engineering) and Mr Huck Tee Lim (University Librarian) were appointed during 1987 and will take up appointments during 1988.

Those leaving the University in the year due to resignation, retirement, or expiry of fixed- or short-term appointments are shown in table 3. There were also twenty senior tutors and thirty-four tutors.

Academic staff employed solely for research projects, expressed in full-time equivalent staff, comprised 286 research fellows, officers, and assistants.

The 1987 distribution of equivalent full-time staff (including casual staff) over the various fields of activity is shown in table 4.

The University records with regret the deaths of Mr G L Bloom, Dr W L Elrick, Mr S G Kilner, and Mr W G Turner.

At the end of 1987, the title Emeritus Professor was conferred on three retiring professors: Professor Leslie Bodi, Professor Goran Hammerstrom, and Professor Marie Neale.

The University remains within the CTC 7 percent limit for staff undertaking outside studies programs.

Rounding errors may apply to the above figures.

## STAFF

Table 2: Recruitment of teaching staff

	Continuing appointment	Fixed-term	Short-term and temporary
Professors	13	—	—
Associate professors	1	—	—
Senior lecturers	8	3	19
Lecturers	14	22	23

Table 3: Resignations, retirements etc.

	Continuing appointment	Fixed-term	Short-term and temporary
Professors	3	—	—
Associate professors	5	—	—
Senior lecturers	14	—	3
Lecturers	3	6	22

Table 4: Distribution of equivalent full-time staff

Activity	Total	
Teaching and research		
Teaching staff	957	
Support staff	682	1 639
Research		
Academic staff	286	
Support staff	65	351
Library		187
Computing		77
Other academic services		51
Student services		23
Central administration		226
Buildings, grounds, cleaning and central services		240
Continuing education		13
Independent operations —		
University Union, Bookshop, etc.		250
Total		3 057



## ACADEMIC DEVELOPMENTS

**Degrees and diplomas conferred** (as at 31 December 1987)

The following degrees and diplomas were conferred by the University at graduation ceremonies in 1987, the final column indicating the total number of degrees and diplomas awarded since the foundation of the University.

	Male	Female	Total 1987	1961- 1987
Bachelor of Arts	151	381	532	10 975
Bachelor of Arts with Honours	34	73	107	1 840
Bachelor of Social Work	—	34	34	213
Bachelor of Social Work with Honours	1	4	5	187
Master of Arts	13	11	24	421
Master of Librarianship	1	3	4	42
Master of Social Work	2	—	2	18
Bachelor of Economics	187	141	328	6 649
Bachelor of Economics with Honours	36	13	49	634
Master of Administration	13	5	18	574
Master of Economics	3	3	6	200
Bachelor of Education	26	34	60	1 791
Bachelor of Special Education	8	24	32	272
Master of Education	5	8	13	443
Master of Educational Studies	37	38	75	533
Bachelor of Engineering	94	7	101	1 438
Bachelor of Engineering with Honours	95	12	107	1 722
Master of Engineering Science	17	2	19	378
Bachelor of Jurisprudence	12	11	23	1 118
Bachelor of Laws	103	91	194	3 129
Bachelor of Laws with Honours	16	10	26	246
Master of Laws	7	5	12	204
Bachelor of Medical Science	—	—	—	16
Bachelor of Medical Science with Honours	7	3	10	173
Bachelor of Medicine, Bachelor of Surgery	61	38	99	2 174
Bachelor of Medicine, Bachelor of Surgery with Honours	28	17	45	693
Master of Psychological Medicine	4	1	5	9
Master of Public Health	5	1	6	10
Master of Surgery	—	—	—	3
Bachelor of Science	193	141	334	5 321
Bachelor of Science with Honours	84	78	162	3 126
Master of Environmental Science	10	4	14	191
Master of Science	15	9	24	393
Doctor of Philosophy — Arts	10	5	15	267
Economics	4	—	4	44
Education	4	5	9	131
Engineering	16	—	16	286
Law	—	—	—	25
Medicine	4	—	4	127
Science	28	11	39	911
Doctor of Engineering	—	—	—	1
Doctor of Letters	—	—	—	1
Doctor of Medicine	1	—	1	38
Doctor of Science	—	—	—	12
Honorary Master of Science	—	—	—	5
Honorary Doctor of Letters	2	1	3	13
Honorary Doctor of Economics	—	—	—	2
Honorary Doctor of Engineering	—	—	—	10
Honorary Doctor of Laws	2	1	3	42
Honorary Doctor of Medicine	—	—	—	5
Honorary Doctor of Science	—	—	—	13
<b>Total degrees</b>	<b>1 339</b>	<b>1 225</b>	<b>2 564</b>	<b>47 051</b>
	Male	Female	Total 1987	1961- 1987
Diploma in Applied Sociology	1	1	2	2
Diploma in Commercial Law	10	—	10	49
Diploma in Computer Science	—	—	—	25
Diploma in Education	69	171	240	7 401
Diploma in Educational Psychology	9	21	30	338
Diploma in Engineering Geology	—	—	—	9
Diploma in English	2	2	4	44
Diploma in Environmental Studies	—	7	7	7
Diploma in Family Law	—	—	—	18
Diploma in General & Comparative Literature	1	—	1	2
Diploma in Immunology	1	—	1	18

Diploma in International and Comparative Law	—	—	—	3
Diploma in Japanese Studies	2	—	2	11
Diploma in Librarianship	1	1	2	35
Diploma in Linguistics	—	—	—	4
Diploma in Materials Engineering	2	—	2	4
Diploma in Microbiology	—	—	—	5
Diploma in Migrant Studies	—	—	—	22
Diploma in Operations Research	7	2	9	61
Diploma in Slavic Languages	—	—	—	1
Diploma in Taxation Law	5	2	7	50
<b>Total diplomas</b>	<b>108</b>	<b>209</b>	<b>317</b>	<b>8 109</b>

### 1987 annual examination pass rates

There has been a continuation of the high percentage of first year full-time students passing examinations. Fluctuations in the pass rates may occur from various factors including level of intake, changes in course content and structure and variations in assessment method.

Group (a)	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Arts	87	86	87	84	84	88	87	84	87	89	81
Economics and Politics	83	85	82	83	80	81	82	81	84	78	77
Law	90	93	97	92	95	90	95	95	95	95	94
Science	80	83	86	87	88	91	92	93	93	95	90
Group (b)											
Diploma in Education*	95	98	87	93	95	93	95	99	98	98	96
Engineering	71	73	74	75	83	80	84	87	89	80	83
Medicine	95	95	88	92	92	92	94	90	98	91	90

For the purposes of this table, students are regarded as having passed in:

Group (a) if they have passed more than half the subjects or units taken, except that those taking three subjects are regarded as having passed the year only if they have passed all three subjects; and

Group (b) if they passed all subjects or failed in one or two subjects but were granted passes in the year as a whole and continued into the next year of the course.

\*Calculated from enrolments in Diploma in Education and Diploma in Educational Psychology.

The net total undergraduate population increased from 10 237 in the previous year to 10 495. Higher degree enrolments increased from 2 379 to 2 392 and total enrolments of all students from 13 839 to 14 003. Full details on enrolments are given in the table below.

Of the total of 14 003 students, 1 608 (11.5 percent of the total) were from overseas as follows: *Oceania* — Papua New Guinea 9, Fiji 12, New Zealand 10, Tonga 1, Western Samoa 1; *Africa* — Ghana 6, Kenya 1, Malawi 3, Mauritius 2, Nigeria 4, Republic of South Africa 2, Tanzania 2, Uganda 3, Zambia 1, other Africa 1; *America* — Canada 10, USA 19; *Asia* — Brunei 5, Hong Kong 117, India 1, Malaysia 1 082, Singapore 73, Sri Lanka 23, Israel 2, other Mid East 1, Bangladesh 7, Burma 1, China 39, Indonesia 60, Japan 15, Korea 14, Pakistan 2, Philippines 1, Taiwan 5, Thailand 19, Turkey 1, Vietnam 3; *Europe* — UK and Ireland 14, France 1, Germany 5, Italy 1, Malta 1, Netherlands 1, Nordic Lands 1, other Europe 16. A total of 951 males and 657 females.

### STUDENT ENROLMENT

#### Net Enrolments by degree faculty 1987 (as at 30 April)

	Full-time			Part-time			Total		
	M	F	T	M	F	T	M	F	T
<b>Higher Degree</b>									
Higher Doctorate	0	0	0	3	0	3	3	0	3
PhD	325	197	522	110	60	170	435	257	692
Masters	294	178	472	720	505	1 225	1 014	683	1 697
<b>Total</b>	<b>619</b>	<b>375</b>	<b>994</b>	<b>833</b>	<b>565</b>	<b>1 398</b>	<b>1 452</b>	<b>940</b>	<b>2 392</b>
<b>Master Preliminary</b>									
<b>Total</b>	<b>27</b>	<b>14</b>	<b>41</b>	<b>29</b>	<b>30</b>	<b>59</b>	<b>56</b>	<b>44</b>	<b>100</b>



# **Postgraduate Diplomas**

## **Arts:**

DipApSoc	0	3	3	1	4	5	1	7	8
DipEngl	0	0	0	0	5	5	0	5	5
DipGCL	0	0	0	0	3	3	0	3	3
DipJapStud	0	2	2	0	1	1	0	3	3
DipLibr	0	0	0	1	8	9	1	8	9

## **Economics & Politics:**

DipOpsRes	2	1	3	12	2	14	14	3	17
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## **Education:**

DipEd	78	127	205	25	53	78	103	180	283
DipEdPsych	8	12	20	11	27	38	19	39	58

## **Engineering:**

DipMatEng	0	0	0	2	0	2	2	0	2
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## **Environmental**

## **Science:**

DipEnvSt	4	3	7	11	4	15	15	7	22
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## **Law:**

DipComLaw	3	0	3	22	8	30	25	8	33
DipFamLaw	0	1	1	3	6	9	3	7	10
DipInt&CompLaw	0	0	0	0	1	1	0	1	1
DipTaxLaw	4	3	7	8	7	15	12	10	22

## **Medicine:**

DipImm	1	0	1	0	1	1	1	1	2
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<b>Total</b>	100	152	252	96	130	226	196	282	478
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# **Postgraduate**

## **Bachelors Degrees**

## **Education:**

BESt	3	4	7	72	110	182	75	114	189
BSpecEd	2	8	10	14	98	112	16	106	122

<b>Total</b>	5	12	17	86	208	294	91	220	311
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# **Bachelor Degrees**

## **Arts:**

BA I	329	727	1 056	49	208	257	378	935	1 313
II	176	417	593	40	138	178	216	555	771
III	178	441	619	83	263	346	261	704	965
IV	27	58	85	12	31	43	39	89	128

<b>Sub-total</b>	710	1 643	2 353	184	640	824	894	2 283	3 177
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BSocWk III	14	40	54	0	0	0	14	40	54
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IV	4	34	38	0	1	1	4	35	39
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<b>Sub-total</b>	18	74	92	0	1	1	18	75	93
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## **Economics and**

## **Politics:**

BEc I	291	171	462	22	7	29	313	178	491
II	198	179	377	24	11	35	222	190	412
III	211	183	394	148	98	246	359	281	640
IV	13	8	21	0	0	0	13	8	21

<b>Sub-total</b>	713	541	1 254	194	116	310	907	657	1 564
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## **Economics & Politics/**

## **Engineering**

BEc/BE I	12	2	14	0	0	0	12	2	14
II	13	2	15	0	0	0	13	2	15
III	21	0	21	0	0	0	21	0	21
IV	2	0	2	0	0	0	2	0	2

<b>Sub-total</b>	48	4	52	0	0	0	48	4	52
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## **Engineering:**

BE I	281	24	305	1	0	1	282	24	306
II	180	24	204	7	1	8	187	25	212
III	154	26	180	3	0	3	157	26	183
IV	205	20	225	12	0	12	217	20	237

<b>Sub-total</b>	820	94	914	23	1	24	843	95	938
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## **Law:**

LLB I	3	5	8	5	1	6	8	6	14
II	3	4	7	5	7	12	8	11	19
III	11	11	22	8	5	13	19	16	35
IV	43	24	67	18	19	37	61	43	104

<b>Sub-total</b>	60	44	104	36	32	68	96	76	172
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BJuris/LLB I	6	5	11	1	2	3	7	7	14
II	7	8	15	1	1	2	8	9	17
III	8	14	22	1	1	2	9	15	24
IV	13	17	30	2	3	5	15	20	35
Sub-total	34	44	78	5	7	12	39	51	90
Law/Arts:									
BA/LLB I	16	44	60	0	1	1	16	45	61
II	43	60	103	2	5	7	45	65	110
III	64	81	145	3	6	9	67	87	154
IV	50	77	127	27	30	57	77	107	184
Sub-total	173	262	435	32	42	74	205	304	509
Law/Economics & Politics:									
BEC/LLB I	36	25	61	0	0	0	36	25	61
II	53	49	102	0	0	0	53	49	102
III	77	47	124	3	0	3	80	47	127
IV	89	37	126	19	3	22	108	40	148
Sub-total	255	158	413	22	3	25	277	161	438
Law/Engineering:									
BE/LLB II	6	1	7	0	0	0	6	1	7
Sub-total	6	1	7	0	0	0	6	1	7
Law/Science:									
BSc/LLB I	13	10	23	0	0	0	13	10	23
II	16	8	24	0	0	0	16	8	24
III	23	13	36	1	1	2	24	14	38
IV	25	16	41	4	1	5	29	17	46
Sub-total	77	47	124	5	2	7	82	49	131
Medicine:									
MB BS I	78	72	150	0	0	0	78	72	150
II	91	53	144	0	0	0	91	53	144
III	74	57	131	0	0	0	74	57	131
IV	75	66	141	0	0	0	75	66	141
V	73	61	134	0	0	0	73	61	134
VI	95	59	154	0	0	0	95	59	154
Sub-total	486	368	854	0	0	0	486	368	854
BMedSc	9	1	10	0	0	0	9	1	10
Sub-total	9	1	10	0	0	0	9	1	10
Science:									
BSc I	406	325	731	8	10	18	414	335	749
II	310	257	567	31	27	58	341	284	625
III	259	233	492	96	56	152	355	289	644
IV	95	80	175	3	3	6	98	83	181
Sub-total	1 070	895	1 965	138	96	234	1 208	991	2 199
Science/Engineering:									
BSc/BE I	79	7	86	2	0	2	81	7	88
II	48	4	52	0	0	0	48	4	52
III	73	6	79	2	0	2	75	6	81
IV	34	5	39	1	0	1	35	5	40
Sub-total	234	22	256	5	0	5	239	22	261
Not for degree	6	12	18	80	129	209	86	141	227
<b>Total other than higher degree</b>	<b>4 851</b>	<b>4 388</b>	<b>9 239</b>	<b>935</b>	<b>1 437</b>	<b>2 372</b>	<b>5 786</b>	<b>5 825</b>	<b>11 611</b>
<b>Total net enrolments</b>	<b>5 470</b>	<b>4 763</b>	<b>10 233</b>	<b>1 768</b>	<b>2 002</b>	<b>3 770</b>	<b>7 238</b>	<b>6 765</b>	<b>14 003</b>



## FACULTY OF ARTS

Dean: Professor J A Hay MA Cantab. BA PhD  
W. Aust. FACE

### Student enrolments

The faculty's load increased in 1987 from 2 917 EFTS to 3 015 EFTS. The total load was made up of 510 HD and 2 505 OTHD EFTS. In addition to the target figure of 2 505 OTHD EFTS, the faculty was required to admit an additional forty-seven students under the State Government Youth Guarantee Scheme.

### Faculty planning

During 1987 the faculty undertook a major review of its priorities and procedures. Each department and several of the centres conducted priorities reviews, aimed at identifying not only strengths and weaknesses, enrolment patterns, teaching and research activities and employment opportunities for graduates but also those characteristics which make the department or centre distinctive in the Victorian and Australian academic contexts. The completed priorities reviews formed the basis of attempts to define an academic profile of the faculty, a process which will continue during 1988.

In view of the significant number of vacant (or soon to be vacant) chairs in the faculty, the priorities review exercise helped departments and the faculty at large focus upon the many issues raised by the retirement of senior academics, including the problems relating to small departments, definitions of existing disciplines, changes in patterns of teaching, research and student demand and present and future funding constraints.

As part of the priorities review exercise, the faculty undertook an examination of its regulations and administrative procedures in both academic and financial spheres. Stated briefly, the object of this exercise was to identify those regulations and procedures which militated against the faculty's efficient achieving of its academic objectives. Among the significant changes to be put in place in 1987 were:

- the use of indicative staffing profiles to help determine the levels at which retiring staff could be replaced. The faculty is now moving towards a 70:30 ratio of lecturer-and-above and below-lecturer level staff, the 30 percent including a fixed component of casual staff
- the use of teaching-load data to help determine departmental teaching budgets
- the use of performance indicators such as publication rates and research productivity to help determine departmental teaching and other resource allocations
- the revision of existing honours and masters regulations to increase the faculty's declining rate of participation in high-level courses and programs
- the abolition of the language or mathematics requirement currently imposed upon some intending matriculants and its replacement by a 10 percent bonus for language students
- the establishment of closer links with a targeted group of secondary schools
- the establishment of a number of faculty and other advisory committees with representatives from the wider community
- the development of a faculty plan to identify and strengthen certain key areas of academic activity including Australian Studies, Asian Studies and European Studies.

### Faculty finances

During 1987, the faculty encountered serious problems arising from its dependence for maintenance and equipment costs upon salary-savings from unfilled academic positions. As a consequence of this, several senior positions (including chairs) will not be able to be filled in 1988. Steps are being taken to reorganise the faculty's funding arrangements to reduce the percentage of the total budget allocated to full-time academic positions but the process will be slow and will involve the restriction or even discontinuation of certain academic programs.

### Staff achievements and professorial appointments

Professor John Hay assumed the deanship on 1 February 1987, succeeding Professor John Legge who retired at the end of 1986. Professor Graeme Davison was acting dean until Professor Hay's arrival and was succeeded as associate dean by Acting Professor Jim Whitelaw.

Professor Davison (History) and Dr D Roberts (German) were elected fellows of the Australian Humanities Academy and Professor J Neustupny was elected a member of the Council of the Australian Academy of the Humanities.

Professor Jean Whyte was awarded the H C L Anderson Award for outstanding service to Librarianship and Dr H Love spent 1987 as A L Munby Fellow at Cambridge University, England.



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### New centres and programs

Nineteen eighty-seven saw the opening of the Centre for Australian Studies, the Centre for European Studies, the Women's Studies Centre and the Centre for Development Studies. Major new teaching programs were planned, to begin in 1988, in Australian Studies, Public History, Japanese Linguistics and Applied Linguistics. As well, a joint Arts-Engineering degree was planned to enable students to combine studies in Japanese and Engineering. A group was also established to co-ordinate and expand the faculty's 'desk-top' publishing activities to cater for the faculty's increasing number of learned journals and specialist monographs.

### Other items of interest

Among other new developments in the faculty which occurred in 1987 were

- Three major conferences in the Department of Geography: Greenhouse 88, Major Issues in Development Studies in Australia, Cenozoic of the Australian Region.
- The removal to Monash of *AUMLA*, the journal of the Australasian Universities Language and Literature Association, and *Thesis 11*.
- A major consultancy for the Department of Social Work from the Law Reform Commission and ten additional places in Social Work under the Social Justice and Economic Strategy Plan.
- The return to Leningrad University of Mr Gordeev and his replacement in Slavic Languages by Mr Rogov from Moscow University.
- A number of students in the Department of German received scholarships provided by the West German Government: one DAAD graduate scholarship, two DAAD semester scholarships, four DAAD winter course scholarships and several Goethe Institute scholarships.
- New graduate programs in the Graduate School of Librarianship in Critical and Cultural Theory, Source Materials for Australian Studies, Conservation of Library and Archival Materials and the Impact of Technology on Archives and Records Management.
- The establishment at Monash of the headquarters for the executive of the Australian Historical Association.
- Concerts run by the Department of Music, with performers including Roy Howat, British pianist and leading Debussy scholar, Ashok Roy (celebrated Indian *sarod* player), and the master drummer from Ghana, Kobla Ladzekpo and the Adzohu Ensemble, all with assistance from the Vera Moore fund.
- Public performances of the Indonesian play, *Kapai-Kapai*.
- A production directed by Dr Denis Bartholomeusz of *King Lear*.
- The departments of Japanese and Music jointly sponsored a lecture-demonstration by leading Japanese musicians, Toro Takemitsu and Kuishi Tsuruta.

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Nineteen eighty-seven has been a year of important innovation and development in the faculty.

A new degree, the Bachelor of Information Systems, was instituted as part of an extension of our teaching of computer studies as they relate to management. The Bachelor of Information Systems is the outcome of a cooperative arrangement between the Commonwealth Tertiary Education Commission and the Business Council of Australia to provide funding for a new program in information systems at Monash University. It breaks new ground by the provision of scholarships to students taking the degree and the inclusion of work in industry in the requirements for its successful completion. The degree has been designed to provide an education in computing in a management context. It is a departure from the faculty's long-standing position of offering only one undergraduate degree.

The faculty has also added to its operations in computer education at the graduate level. The Diploma of Operations Research has been reconstituted as a Diploma of Business Systems and a Master of Management degree has been established with one of its aims to promote graduate work in information systems by coursework and minor thesis.

The greater emphasis on computer education is part of a more general expansion of management studies. The new Master of Management degree will permit graduate students to undertake research into management as the basis for a masters thesis. The Master of Business Administration has been strengthened by the addition of a specialisation in international management. In addition, a Public Sector Management Institute has been established within the Graduate School of Management and Professor Henry Ergas, a distinguished member of the OECD secretariat, has been attracted to it, particularly for his expertise in telecommunications.

The faculty has been successful in attracting increasing numbers of overseas students, additional to its publicly funded quota, for payment of a full fee. In 1987

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### FACULTY OF ECONOMICS AND POLITICS

Dean: Professor W A Sinclair MCom Melb.  
DPhil Oxon. FASSA



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there were thirty such students in all, most taking the Bachelor of Economics degree and a smaller number enrolling for the Master of Business Administration degree. The indications are that this is a growing group of students and it is partly with this in mind that the international management specialisation has been introduced into the Master of Business Administration program.

The demand for the faculty's courses continues to be generally strong and increasing. Although the faculty increased its total numbers of publicly funded students to 2 429 EFTS, there was a further rise in the cut-off score for entry into the Bachelor of Economics degree. It was also noticeable that a substantial proportion of the faculty's intake had scores above the cut-off score for acceptance into the Commerce Faculty at the University of Melbourne. In addition, the faculty admitted a number of socially and educationally disadvantaged students into the BEc degree under the State Youth Guarantee Scheme.

The faculty continued to be prominent for its research activities, particularly through the operations of its research centres. The Centre of Policy Studies continued to play a leading role in informing the debate on economic policy at the same time as planning for the period from the end of 1987 when it would not continue to receive a direct grant from the Commonwealth Government. A Centre for Research in Accounting and Finance was established and is demonstrating its ability to attract outside funds for research in that area. The Public Sector Management Institute received a grant from the Academic Development Fund and is planning major research projects related to the management of public utilities with the help of this and other funds it hopes to raise from sources external to the University.

The Donald Cochrane Library was pleased to receive an official presentation of a substantial collection of company files prepared by the stockbroking firm of J B Were and Son between 1917 and 1970. The approximately 9 000 files add to the library's growing collection of business records.

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#### CENTRE OF POLICY STUDIES

Major projects undertaken by the centre in 1987 included options for taxation reform and the development of conceptual models and data bases for comparing and contrasting different taxation schemes; evaluation of major government expenditure programs (including education, health and social security) and assessment of alternative policy options; study of issues influencing inter-governmental efficiencies in the supply of public goods and services; economic assessment of government intervention in accident compensation schemes, with emphasis on workers' compensation; evaluation of the contractual issues in labour markets; pricing and investment policy options for the rail transport of Australian bulk minerals.

Funds for these and other projects were roughly half from a special research grant from the Federal Government and half from commissioned research received by the centre from private sources. In addition to funding staff and facilities within the centre, part of these funds have been used to assist the research activities of other members of the faculty and some other researchers in Australia.

In the course of the year the centre organised four public seminars in the City of Melbourne: 'Tax reform — the next steps', 'Competitiveness in telecommunications', 'Program trading and the crash of '87' and 'The political economy of Margaret Thatcher'.

During 1987 considerable time was spent by members of the centre in responding to requests from the media and from politicians of all political colours about contemporary economic and social policy issues. These activities are an integral component of the centre's charter to bridge the gap between policy and research in the areas of economic and social policy. These goals were set out in the centre's Centre of Excellence application and have provided a bridge between academic research and potential users in the public and private sectors.

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#### FACULTY OF EDUCATION

Dean: Professor Peter J Fensham AM MSc Melb. PhD  
Brist. and Cantab. DipEd FRACI FASSA ABPS AAPs

Nineteen eighty-seven has, in most of the aspects I usually report here, been a successful year for the Faculty of Education. These successes do need to be recognised both inside and outside the University. I intend, however, to devote more of this year's report to the senses of chronic constraint and neglect that I perceived as more apparent in 1987 than in any of the previous twenty years I have been at Monash.

Perhaps the simplest and most telling way to present the positive side of the faculty's life is to remind members of Council that early in 1987 the *Times Higher Education Supplement* in Britain reported a survey of the relative merits in teaching and research of university departments of education. In response to one of the questions, about excellence elsewhere, the faculty at Monash was listed with Harvard and Stanford as one of the top three.

## Students

I have, on several occasions, expressed our concern that a Ministry of Education should present a balanced picture of Victoria's overall need for teachers. Accordingly, we were shocked to see in mid 1986 an announcement that 1 000 fewer teachers would be needed, but no reference to how this interacted with a new early retirement scheme that would take many teachers out of the service.

Predictably our enrolments for the Diploma in Education nosedived in 1987. The shortfall was almost entirely due to about a 50 percent drop in the science/mathematics/business studies areas — scarcity areas in the education system. For these sorts of teachers, the system is competing with a number of other attractive employers for a limited pool of graduates.

Enrolments were healthy or as expected in our other programs, but for the first time in many years the faculty was noticeably below its target. Furthermore, during the year the University moved from one arbitrary system of counting student load (EFTS) to another (EFTSU). This change had its largest impact on Education among the seven Monash faculties. It does represent a discounting of higher degree studies which involve more than half the enrolment in Education. Since no other faculty remotely approaches this fraction the effect elsewhere is much smaller. There have been immediate effects on the faculty's share of the special equipment grant, and it will be important to redress the formula for this since a change in a method of counting does not bring with it a lessened demand for resources.

Monash in various policy statements over the years has aimed to lift its post-graduate aspect but in Education we often feel disadvantaged for being where other faculties would like to be. When most of these post-graduate students are part-time, there are additional features of teaching and administration that also seem unrecognised by the University.

## Teaching

Several initiatives have been introduced to the Diploma in Education program over recent years and it was interesting to find a former visitor from Sweden quoting these as models for the reform of teacher education that the University of Gothenburg and the other Swedish universities are now required to undertake. The student/staff conference on the program, the combination of two previously separate elements into Teaching and Learning (TAL) and steady incorporation of research findings into most of the program's units are some of these innovations. In 1987 Dr Jeff Northfield, with the cooperation of Carwatha High School (North Noble Park) pioneered with a group of students our first school-based strand within the overall program. This was a great success and brought into reality an ideal that had been talked about for many years. Two other groups of staff also agreed to co-ordinate and reshape their contributions for 1988 so that *semper reformandum* is indeed an appropriate description of this vital program for developing new teachers. Some examples of innovations in other programs in 1987 are simply listed.

- A cooperative effort enabled the Department of Mathematics to offer units of study that can contribute both to the faculty's Bachelor of Educational Studies degree and to the quality and standing of these teachers in the education system.
- The Bachelor of Special Education students now face a program that is both more streamlined and more flexible while maintaining a strengthened core of studies.
- The first students in educational psychology began a special program for their Master of Educational Studies that includes an amount of full-time supervised practice. This will meet the rigorous standards this profession lays down for its recognised fifth and sixth years of training.

## Staff

At the end of 1987 two senior members of the academic staff of the faculty retired after many years of teaching and research in universities. Professor Marie Neale came from Sydney University in 1970 and after establishing a comprehensive approach to special education in the faculty's post-graduate coursework degree, moved in 1982 to a research chair, continuing as the Director of the Krongold Centre, a most valuable physical resource which in 1988 returns to the faculty to administer. Dr Mary Nixon, also from Sydney, has worked in the faculty since 1967 and contributed greatly to its programs in educational psychology, especially in professional aspects of psychological practice and developmental psychology. The loss of these two will be greatly felt by the faculty, especially since budgetary constraints mean that there is no immediate prospect of replacing either of them. This, too, has very serious consequences for gender balance of staff in the faculty which hitherto had been better than most other faculties, although by no means reflecting the participation of the sexes in education overall. Barbarra Johnson, Leslie Hardcastle, and Kieran Mundy were among several other temporary staff who left at the end of 1987 and I would like to mention them for the loyalty they have shown and



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for the many ways they have contributed. Mrs Connie Stuart and Mrs Jean Shaw, professorial secretaries of long standing, moved in 1987 to a position in HEARU and retired respectively. Both have been much missed.

The number of staff both academic and general who left the faculty during 1987 is considerable and it is depressing to have to report that only Dr Terri Seddon (contract lecturer) and Ms Trish Pettit (secretary) joined it in 1987. The relentless contraction of staff, year after year, does take its toll of morale and it is not healthy for us to have to think of retirements and the odd resignation as our means of balancing a budget rather than as opportunities for new blood, and new directions.

It is a pleasure to record the promotion of Dr Ann Shorten to senior lecturer and of Dr Gilah Leder to associate professor.

In 1987, five staff from other Australian universities spend periods of leave in the faculty — an interesting development of intra-Australian sharing that had been noted for its absence by a number of our overseas visitors in earlier years.

### **New projects**

The following projects were supported by the Vice-Chancellor from the newly established Academic Development Fund:

- Monash parent-teacher education centre (Associate Professor M Balson)
- School-based decision making and management centre (Dr J D Chapman)
- New teaching programs (Dr L Angus — educational administration and policy and Ms A McDougall — teacher development for educational computing)

While this financial support was welcome and has enabled substantial new initiatives to occur, it was disappointing that none of them was funded sufficiently to be viable as planned without further funding from the faculty's meagre resources. This meant that the support (from faculty funds) for research and other sorts of projects was reduced. Four projects — development of an alumni association, a research conference on the education of girls, supervisory staffing for the new professional psychology course and initial steps towards a youth studies centre — were, however, possible and it is pleasing to report that all seven of these projects have already borne substantial fruit.

I would, however, like to sound a note of warning about the drive that is now so evident at Monash and in Australian higher education generally, towards entrepreneurial activities that will be self-funding from sources outside the University. Unless research is substantially redefined to mean whatever goes on in these projects, then it seems likely that the present drive will be harmful to the quality and amount of research going on at Monash. Late in 1987 I spent a couple of months at the University of Leeds. My reason for choosing that department of Education was because of earlier scholarly associations I had developed with a number of its staff, two of whom have been the faculty's triennial visiting professors. It was sad to find both of these fine scholars now so busy on external projects and seeking further funding for them or for a next project that neither had time to devote to research in the fields that made them and their university departments so notable. Since this is the outcome of their country glorifying such external initiatives among its university staff for a number of years now, there is a strong counter case for Monash and other Australian universities to resist the present pressures. We should reiterate the case for funds to be available in more traditional ways to facilitate unfettered scholarship rather than heading towards these other priorities.

### **Research**

A strong research flavour is evident in the faculty and it could hardly be otherwise with several hundred students engaged in individual investigations that will lead to project reports and theses at the Masters and PhD levels. Twelve major theses were accepted for the PhD degree and thirteen for the MEd during the year.

It is, however, the activity of the staff in the research area that has enabled Monash Education to stand so high in the past and it is pleasing to be able to report much healthy activity again in 1987. The faculty's first (perhaps the only one in Australia) program grant from ARGS began in the science education field. After the notable work by Dr John Baird in his doctoral studies at Monash and his collaborative part with Monash colleagues in the remarkable PEEL Project at Laverton High School, it was very pleasing that Melbourne College of Advanced Education agreed to second him to work with professors White and Fensham and Dr Gunstone on this major project. Other staff supported by ARGS are: Dr Gronn (life and work of J R Darling); Dr Leder (mathematics education); and Professor Poole (choices of girls and women re education). As usual, however, a number of other sources provided the bulk of support for research in the faculty.

A number of major books were published during the year. Among these were: Dr Bullivant *The ethnic encounter in the secondary school* and Dr Burke *The future impact of technology on work and education* (both published by Falmer Press); Dr Hunt *The*



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incorporation of education (RKP); Professor Musgrave *Socialising contexts: the subject in society* and Dr Spaul *A history of the Australian Education Council* (both Allen and Unwin). One very substantial report by Dr Spicer *The transition to secondary school of pupils from Catholic parish schools* is an example of the large body of research in the faculty that has this form of outlet.

### Forward planning

It was interesting in 1987 to see a revival of notions of forward planning in the new administration of the University. Several discussions were held and a summary of the substantial document we prepared in 1985 (with some opportunity for revision) was produced. Notwithstanding this raising of our hopes that some specific interests and needs of the faculty would gain budgetary support, the budget for 1988 when received in November did not seem to have been significantly affected by the planning process. Until planning and budget setting are joined in an iterative process the former remains a hollow and indeed a morale lowering activity.

### Professional links

Lest the emphases in this year's report suggest that activities in earlier reports are no longer prominent, may I say that I see no diminution of the contributions staff make to the schools and the education system more widely. Many of them are, for example, actively assisting in and providing a critical commentary on the development of the new Victorian Certificate of Education. More details of these contributions can perhaps be provided in next year's report.

### A concluding reflection

As 1987 draws to a close there is much talk at both the Commonwealth and Victorian levels of major restructurings for higher education. A committee is also examining options for funding it among which student fees and a graduate tax are being considered.

After twenty years of the binary system in Australia and with governments at both levels firmly committed to still greater participation of each age group in higher education there is a good case for introducing more flexibility into the scene. Perhaps restructuring would result in such freshness and flexibility but the past record of amalgamations does not correlate well with educational innovativeness whatever it does with bureaucratic neatness and economic efficiency. It is paradoxical that the expansion is clearly argued for as a national need and yet participation by students is so often now perceived in terms of individualistic gain.

Students in a faculty like Education make an interesting case study in this context. If greater participation targets are to be met those who move into schools as teachers after a Diploma in Education have a vital national role to play. With social justice policies like *integration*, those taking courses such as the Bachelor of Special Education and the Diploma in Educational Psychology are not only needed as expert individuals but the State, by regulation or legislation, requires these qualifications.

For the majority of our students — those taking further professional studies or research degrees — there is abundant evidence that there are no guarantees of direct personal financial gain in the education system for the many hours of disciplined effort over four or five years these students put in to gain their degree. This sort of professional dedication and personal sacrifice among Australian teachers needs much more publicity than it gets and is not at all honoured by the arguments being mounted for re-introducing fees and particularly for second degrees.

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### CTEC review of engineering education

During the year the faculty was visited by members of a committee undertaking a national review of engineering education for the Australian Government acting through the Commonwealth Tertiary Education Commission. The committee is under the chairmanship of Sir Bruce Williams, one-time Vice-Chancellor of Sydney University. A large amount of statistical data was assembled to aid the work of the committee.

Although the final report of the CTEC review of engineering education is awaited, it is clear from the comparative performance indicators which have been circulated to deans of engineering that Monash engineering has a relatively high level of achievement in teaching, research, scholarship, continuing education, and collaboration with industry. The aggregate performance per member of the Monash engineering team places us at or near the top of the list of Australian engineering faculties.

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### FACULTY OF ENGINEERING

Dean: Professor L A Endersbee AO FTS BCE ME  
Melb. HonFIEAust HonMEIC FASCE MAustIMM

## Review of activity over the past decade

For the purposes of the CTETC review of engineering education, the faculty was asked to describe what it regarded as its most significant achievements over the past decade, and it is appropriate to mention some of the key features.

The faculty was proud to state that in the decade, 1976-86 it had graduated a total of 1 615 Bachelors of Engineering, 235 Masters of Engineering Science, 157 Doctors of Philosophy and one Doctor of Engineering. The graduates are well regarded in the engineering profession, with some now moving to positions of distinction.

Throughout the decade, the faculty attracted an increasing number of capable students — undergraduate enrolments increased by 32 percent, while the mean score of the class at entry rose by 42 points. There was a substantial, and needed, improvement in the overall pass rate.

There has been continued development of courses to meet changing professional needs, and these developments have occurred in all departments. In response to the need for a broader base of professional training for engineers, the faculty has introduced, in collaboration with other faculties, combined degree programs in a range of disciplines: these include BSc/BE over five years, BE/BEc over five years, and BE/LLB over six years.

The various combined degree programs for Science/Engineering have been most successful and are attracting some very capable students.

The faculty is now contemplating the introduction of a combined degree program with the Faculty of Arts to enable a student to complete a degree in languages (Japanese, German, Indonesian-Malay) in at least one field of Engineering. It is hoped this program will commence in 1989.

Postgraduate courses for Master's degrees were introduced a decade ago in all departments, but these contracted to courses only in Mechanical and Civil Engineering, which are continuing quite successfully. Master's courses in Computer Systems Engineering are to resume in 1988. The major problem in maintaining such intensive Master's courses is the high demand they place on academic staff; the courses do not seem justified if classes are relatively small, say less than fifteen students in each subject. Although there is a continuing modest demand for graduate courses in all disciplines, the restricted funding of the faculty has, regretfully, forced the cancellation of some of these graduate programs.

Over the decade, there has been a continued growth in research activity, with a substantial increase in research funds received from industry, and in research scholars supported by industry. The growth in research is reflected in the steady increase in research publications each year: in 1987 the faculty published thirteen books and over 230 papers, clearly quite an outstanding level of scholarly achievement. Some of the research in the faculty has led to patents, with some now being taken up by Australian and overseas companies.

There is extensive representation of the faculty in international and national learned societies, on editorial boards, and on committees associated with engineering and industrial research in Australia. In the past few years, six members of staff have been appointed to chairs in Engineering in Australia and overseas, and many members of the faculty have received recognition for outstanding professional achievement.

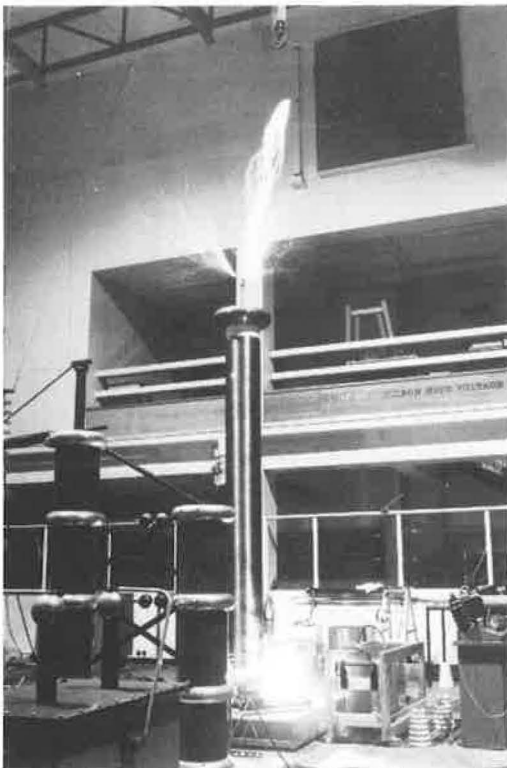
Because of the close identity of the faculty with the engineering profession in Australia, the faculty has had a national influence. Faculty members have carried leading responsibilities in various national studies of engineering and industrial issues. For example, the dean was chairman of the task force on energy of the Institution of Engineers, and Professor Crisp was chairman of the task force on manufacturing.

A negative feature of the review of the past decade was the evidence of continued contraction of funds for teaching. In the decade 1976-1986, the student load (EFTS) in the faculty increased by 22 percent, whilst the number of academic staff decreased by 13 percent. Thus the student/staff ratio increased by 38 percent, placing severe strains on all members of the faculty, who are now stretched to the utmost.

The CTETC review of engineering education provided a unique opportunity for the faculty to assess itself and its standing relative to other engineering faculties in Australia. The result reflects great credit on every member of the Monash Faculty of Engineering.

## Features of 1987

The year of 1987 may well become a turning point in the history of the faculty. There are clearly insufficient funds from University (or government) sources properly to meet the needs for teaching the increased number of students now enrolled, while research funds in government research bodies are limited and often inapplicable to many of our areas of engineering research. Our only option is to turn to



increased outside funding from industry, which we are doing, but it is not appropriate to use outside earnings for research to cover the shortfall in funds for undergraduate teaching.

The University has asked the faculty further to increase new enrolments in Engineering courses in 1988 — the faculty will need a corresponding increase in staff numbers to cope.

It is also very difficult to recruit academic staff. There is a world-wide shortage of engineering academics, and those with expertise in rapidly developing technologies are eagerly sought.

The relatively low value of the Australian dollar makes it difficult to attract staff from overseas, while the low level of our academic salaries relative to industry in Australia leads to staff losses and inhibits recruitment.

### Staff movements, honours and awards

Professor J D C Crisp was awarded the Peter Nicoll Russell Memorial Medal, the highest award of the Institution of Engineers, Australia. It is of interest to note that three members of the faculty have now been awarded this medal: Professor K H Hunt, Professor L A Endersbee and Professor J D C Crisp. This is a rather nice recognition of the faculty, as prior medalists include Sir John Monash, Professor Sir Louis Matheson (foundation Vice-Chancellor of the University) and Mr Ian Langlands, a Deputy Chancellor.

Dr Warren Hewertson, CSIRO, and Mr Denby-Ward of CRA were appointed fellows of the faculty and will be contributing to teaching and research in the Department of Chemical Engineering.

Associate Professor F Lawson was appointed an honorary research professor of the Institute of Chemical Metallurgy, Academia Sinica, in Beijing, China.

Emeritus Professor K H Hunt was elected an honorary member of the International Federation for Theory of Machines and Mechanisms, a distinction rarely awarded.

The dean, Professor L A Endersbee, was made an honorary fellow of the Institution of Engineers, Australia for services to the engineering profession.

### Concluding comments

An announcement was made in November that Dr P LeP Darvall, Reader in Civil Engineering, was to be appointed Dean of the Faculty of Engineering to take office in March 1988 following the completion of my term of office of twelve years.

As this is my final report to Council I would like to take this opportunity to congratulate Dr Darvall on his appointment and to say that I am very proud of the Faculty of Engineering team.

I think it is fair to say that during my term of office I have encouraged the faculty to undertake a greatly expanded range of activities in teaching, research and collaboration with industry. There was a clear national need for engineering faculties in Australia to accept some of the responsibility for the technological problems of Australian industry, which of course, have serious national economic consequences. There was a need for the faculty to advocate changes, to advise governments, and to demonstrate our preparedness to play our part. We did influence governments and changes occurred, but the expanded activities in the faculty clearly caused some strain, especially during a period of decreased faculty funding from University sources in real terms.

The faculty has been most successful and is recognised throughout Australia for its engineering leadership. For my part it has been a privilege to work with such fine, capable people and I treasure the many friendships I have made.

### Introduction

The Faculty of Law experienced an interesting but difficult year in 1987. In February Mr Lucio Dana, who had been appointed the Director of the Centre for Commercial Law and Applied Legal Research in June 1986, and with whom I had spent a considerable period of time in planning activities and in introductions to sponsors and members of the centre in various States, received an offer from the National Mortgage Market Corporation Limited (a State Government sponsored corporation which deals in the secondary mortgage market) and found that it was an offer which he could not refuse. Regrettably, he was unable to stay beyond the middle of March, and it was necessary for me to take over as Director of the Centre once again (in an acting capacity). At the same time, the faculty was short of two professors and had the equivalent of one and a half professors away for the full

### FACULTY OF LAW

Dean: Professor R Baxt BA LLB (Hons) *Syd. LLM Harv.*



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academic year on some form of leave. Despite these difficulties I believe the faculty managed to complete a successful year.

In August the faculty hosted a very successful forty-second annual conference of AULSA (the Australasian Universities Law Schools Association). Monash Law School received a very good assessment of many aspects of its activities from the CTEC committee to review the discipline of law (Professor Enid Campbell of our faculty was a member of the review committee). A number of major research grants were received by members of faculty both on an individual capacity and working through the Centre for Commercial Law and Applied Legal Research. A number of visiting professorships were created for the faculty during the year. Regrettably, the faculty did not agree to continue to accept overseas fee-paying students (being the only faculty in the University now that has decided not to participate in this program). The faculty board has been asked to review this decision and will do so early in 1988.

As a result of the CTEC report into law, the faculty is undertaking another review of its curriculum (the last one having been completed in the late 1970s) and has started to look at the various aspects of its research program as well as its administration.

### **Faculty funding and accommodation**

The faculty is now in need of additional space. This is due to the increased research activity of the faculty and the Centre for Commercial Law and Applied Legal Research. The University has generously provided a house in Beddoe Avenue which will house 'ancillary activities' of the faculty and centre. The faculty has set up a task force to seek funds for additional faculty space and funding.

### **Alumni**

The Monash University Law Alumni (MULA) Inc. has, since its inception six years ago, depended on the efforts of volunteers. Excellent work has been done, but the time has come to consolidate and plan for the future. To this end, we have appointed a part-time alumni public relations officer, Elana Markowitz. She is working closely with the Alumni Committee and has been effective in this role since her appointment in mid-September 1987.

The president of MULA for 1988 is Ms Jan MacLean (1984), a solicitor with Mallesons Stephen Jaques. Vice-president is Dr Chris Jessup (1971) who recently became the fourth Monash graduate to be appointed Queen's Counsel.

The committee of MULA has drawn up a plan of action for 1988, the target of which is plainly to increase greatly membership of the alumni. Strategies include a membership drive, developing a range of member benefits and incentives, organising educational and social functions, developing an on-campus profile and publishing a regular newsletter. The first issue of *Inter alia* was published in November 1987, and it is the first time our alumni have had a regular medium of communication.

As the faculty approaches its silver jubilee year, it is appropriate to note the growing prominence of Monash law graduates in legal and other spheres of our society. This was reflected at the recent 1987 Alumni Annual Dinner and Celebrity Moot, where one of the moot teams consisted of the first three Monash law alumni to become Queen's Counsel — Michael Rozenes (1970), Ray Finklestein (1970) and Mark Weinberg (1971). The other team included Professor C R Williams (1968). Professor Williams holds the Sir John Barry Chair of Law at Monash and is the first Monash graduate to be appointed to a full Chair of Law at an Australian University. It is my view that in developing and maintaining the allegiance of our alumni we are seeding a harvest of future benefits for the faculty and the University.

### **Research**

The research activity of the faculty during 1987 has been notable for its breadth and volume, as well as for its relevance both to professional and community needs and its commitment to the advancement of understanding. This has been a year characterised by the themes of consolidation and change.

The faculty has consolidated its already enviable record as a research school in a number of ways. Publications of scholarly articles and books is one important measure of the vigorous program undertaken during the year. Grants from outside bodies, and cooperative projects with government and professional agencies are another. The faculty achieved very pleasing results in this area. Grants from the ARGS and the Monash Special Research Grant schemes equalled, or approached, the peak levels in the history of the faculty. Various significant funding was provided by the Victoria Law Foundation on projects such as that on computer assisted instruc-

tion in legal education, the feasibility study for a Monash legislative drafting institute, and the case release inquiry being conducted under the auspices of the Courts Advisory Council. Commonwealth agencies generously supported work on sentencing young offenders in Australia and the pioneering book on law and inter-cultural issues.

The Faculty of Law has also been at the forefront in developing constructive responses to recent and anticipated future changes in the external environment for Commonwealth funding of university research. The Research Committee of the faculty has encouraged members of staff to seek financial support for their work from bodies outside the usual channels. Several open forum discussions were held during the year to consider government and Commonwealth Tertiary Education Commission reports on research and to raise the profile of research generally. The faculty is also debating a document which aims to establish a research strategy for the faculty, to dovetail with the University strategy planning process set in train by the Vice-Chancellor.

### **Achievements and professorial appointments**

Mr Richard Fox, Reader in Law, was honoured by receiving the inaugural award given by the Australian Academy of Social Sciences for excellence in research.

Francis A Trindade was appointed to the Sir Owen Dixon Chair of Law, and C Robert Williams was appointed to the Sir John Barry Chair of Law.

Associate Professor Terry Carney was appointed to an acting professorship for the year; and Associate Professor L McCredie was appointed an acting professor for the second half of the year.

### **Teaching**

The faculty's teaching program is the subject of a comprehensive review by the Curriculum and Legislation Committee. In the meantime a number of new courses will be offered for the first time in 1988 following decisions of faculty board in October 1987. They are Resources Law, Alternative Dispute Resolution Law and Social Theory, National Security Law and Occupational Health and Safety. The faculty has also had approved a new graduate diploma — Diploma of Legal Studies.

### **Centre for Commercial Law and Applied Legal Research**

1987 was a very active year for the centre both in terms of research and its continuing legal education program despite the resignation early in the year of the director. As far as research is concerned, the centre commenced a major research project on Corporate Governance funded by the ARGS. The Business Council of Australia and the Company Directors Association have provided substantial funds to match the ARGS grant for this project. A project on Alternative Dispute Resolution was commenced in July. Alternative Dispute Resolution is an increasingly important method of adjudicating disputes and considerable interest has been expressed in the project by governments and the private sector. This project is being assisted by a distinguished panel of advisers drawn from members of the legal profession and the bench in New South Wales and Victoria. Also, work has continued throughout the year on a contract reporting service for CCH, and on a project in the area of company law — ie, Close and Desist Orders.

The centre's in-depth and continuing legal education program has been extensive with approximately twenty-five workshops and seminars being conducted. Most of these were held in the area of commercial law although some other areas of practice were catered for as well. A notable feature of the program was that in-depth seminars and workshops were conducted in Sydney, Adelaide and New Zealand as well as in Melbourne. This form of promoting Monash in other parts of Australia and New Zealand will continue to be a feature of the centre's program.

### **Graduate studies**

The Faculty of Law offers an extensive graduate program including PhD, Master of Laws (by major thesis, and by coursework and minor thesis) four specialist diplomas (in Commercial Law, Family Law, International and Comparative Law and Taxation Law) and a recently introduced less specialised Diploma in Legal Studies. All the graduate diplomas are available to suitably qualified persons from other disciplines.

In 1987 there were 225 candidates enrolled in the graduate program, including eighteen from eleven overseas countries. There were sixteen semester courses taught over the year, including summer. Forty-one candidates completed their courses of study — one PhD, fourteen LL.M and twenty-six diplomas.



## Law library

After serving as deputy law librarian for fifteen years, Lee Poh York relinquished the position at the end of August. She performed her role with great charm and competence, and continues to do so as a reference librarian (part-time). Rosemary Bunnage was initially appointed as acting deputy, and at the end of the year was confirmed as deputy.

For the first six months of the year, Rosemary Bunnage was seconded to the Faculty of Law to explore the possibility of producing computer assisted instruction programs for legal research materials. By the end of the year, CAI programs on the *Australian Digest*, and Victorian legislation had almost been completed. Rosemary Bunnage conducted workshops on computer assisted instruction at the 1987 Australasian University Law Schools Association Annual Conference, and at the Second Asian-Pacific Special and Law Librarians' Conference.

The library continued its formal reader education program in 1987, involving staff in considerable commitments of time giving tutorials at three levels as: Legal Process (80 contact hours); Moot Court (39 contact hours); Honours and post-graduates (15 contact hours).

Reference queries for the ten months March to December totalled 12 324. They ranged from simple directional queries to queries requiring more than half a day of staff time, and included 647 from non-Monash sources.

Library staff provided bibliographical services to the wider legal community through the annual index to the *Monash University Law Review*, and 'Selected Reading' section in *Freedom of Information Review*, MONASHFINDER in the CLIRS database, and an index of articles on company law in the *Company and Securities Law Journal*.

The CTEC Review Committee in its 1987 report *Australian Law Schools*, said of the Monash law library that 'no weaknesses or deficiencies showed up by comparison with the other law libraries'. It is clear that unless the current level of funding for the law library is improved, this comparative level of excellence will not long be maintained.

## Statistics

Staff appointments as at 31 December 1987 totalled fifty-nine academics (including staff on leave without pay but not casual staff). Student enrolments are shown in the marginal table.

## Wilfred Fullagar Memorial Lecture

The sixteenth Wilfred Fullagar Memorial Lecture was delivered during the AULSA conference by the Honourable Sir Anthony Mason, Chief Justice of the High Court of Australia. His paper was entitled 'Future directions in Australian law'.

## Faculty professional activities

The faculty continues to be strongly represented on professional bodies both at a national and state level.

Mr R J Ball is part-time chairman of the Victorian Legal Aid Commission. He is also a member of the Commonwealth Legal Aid Commission, an executive member of the Law Institute of Victoria Property Law Section and its conveyancing committee; a member of the joint Law Institute/RESI liaison committee, the Law Institute Sale of Land Act review committee and the Solicitors Disciplinary Tribunal Panel.

Mr P Balmford is a member of the Law Institute Joint Working Party on Articles, and the CTEC Review on Applications for Survey on Destinations of Law Graduates.

Professor R Baxt was president of the Australasian Law Schools Association and chairman of the Council of the Tax Institute of Australia (Vic.) until December 1987. He is also a member of the Commercial Law Committee and the De-Regulation Sub-Committee of the Law Institute of Victoria, a member of the Commercial Law Association of Australia (Victorian Chapter), executive member of the Business Law Section of the Law Council of Australia, member of Taxation Committee and Trade Practices Committee of the Business Law Section, Law Council of Australia and Secretary, Banking Law Association of Australia Limited. In addition he is a member of the Courts Advisory Council (Victoria), the Melbourne University Faculty Board, and the Legal Drafting Institute — Feasibility Study. He is consultant to the Legal Committee of the Business Council of Australia and consultant to the legal firm, Arnold Bloch Leibler.

Professor Enid Campbell is a member of the Law Reform Advisory Council, honorary consultant to the Administrative Review Council, consultant to the

## Enrolments

PhD	9
LLM	136
Diplomas	80
Bachelors	1 460
Not for degree	11
Total	1 696

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Australian Law Reform Commission and member of the Constitutional Commission.

Acting Professor T Carney is chairman of the National Advisory Council on Social Welfare (Cth) and chairperson of the Advisory Committee to the Health Legislation Review Unit. He is a member of the Joint Standing Committee on Higher Degrees by Research Colleges and Advanced Education and a member of the Social Security Appeals Tribunal.

Associate Professor H B Connell continues as a member of the Victorian Committee on Discrimination in Employment and Occupation. He was chairman of the Disciplinary Appeal Board of Australia Post and Telecom and counsel assisting the Commission of Inquiry on Compensation to Nauru.

Mr R G Fox is a member of the Office of Corrections Research Advisory Committee, a member of the Australian Law Schools CLRS working party and alternate member to the dean on the Victorian Government CLRS advisory committee.

Associate Professor L McCredie is a member of the (Vic.) Council of Legal Education, the National Advisory Council for the Handicapped, the Victorian Consultative Committee on Rehabilitation and the Leo Cussen Institute for Continuing Legal Education.

Professor Michael Pryles is a part-time Commissioner of the Australian Law Reform Commission, a member of the Law Council Trade Law Committee and consultant to the legal firm Messrs Minter Ellison.

Mr S Smith is a member of the Victorian Legal Aid Commission and various other committees concerned with legal aid and community legal centres.

Professor F A Trindade is a member of the Law Council Defamation Committee, and a faculty representative on the Chief Justice's Law Reform Committee.

Mr J Waincymer was the dean's alternate on the Business Law Section Executive, Law Council of Australia.

Ms J Wallace is a member of the Attorney-General's Property Law Working Group and a member of the Estate Agents Board and a Commissioner of the Law Reform Commission of Victoria.

Professor P L Waller is a part-time member of the Victorian Law Reform Commission, chairperson of the Standing Review and Advisory Committee on Infertility, and a member of the Executive of the Victoria Law Foundation.

Professor C G Weeramantry has been appointed chairman of the Commission of Inquiry on Compensation to Nauru.

Professor C R Williams is a faculty representative on the Chief Justice's Law Reform Commission.

A number of members of faculty are consultants and advisers to various committees of the Leo Cussen Institute for Continuing Legal Education, the Law Institute of Victoria, and the Law Council of Australia.

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## Students

The total number of EFTSU in the faculty at 30 April 1987 was 1 593. There were 864 medical undergraduates distributed as follows:

Year I: 150; Year II: 144; Year III: 130; Year IV: 150; Year V: 136; Year VI: 154. Female entrants comprised 51 per cent of the first year intake comprising for the first time since the establishment of the Medical School, a majority of students entering medical classes.

## Staff

Staff comprised 206 members of academic staff, 155 technical staff and sixty-four clerical staff. Clinical teachers included some 280 visiting medical staff and 106 full-time hospital staff in affiliated hospitals and approximately 350 general practitioners.

## Honours and distinctions

Professor R V Short was re-appointed as a member of the Scientific and Technical Advisory Committee of the World Health Organization.

Professor V C Marshall received an honorary fellowship of the Indian Association of Surgeons.

Professor G C Smith, chairman, Department of Psychological Medicine and associate dean, was appointed a member of the Research Fellowships Committee of the National Health and Medical Research Council.

Dr N A Keks, lecturer in the Department of Psychological Medicine was awarded the Junior Organon Research Award of the Royal Australian and New Zealand College of Psychiatrists.

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## FACULTY OF MEDICINE

Dean: Professor G C Schofield OBE MD ChB NZ  
DPhil Oxon. FRACP FRACMA



Professor P I Korner, director of the Baker Institute and a professor of Medicine at Monash, was awarded an honorary Doctor of Science from the University of New South Wales on 4 February 1987. The degree was awarded in recognition of his contribution to medical science and his past association with UNSW. Professor Korner was also elected president of the Board of Management of the amalgamated Alfred, Caulfield and Royal Southern Memorial Hospitals.

### **New professorial appointments**

Professor M L Wahlqvist took up his appointment as professor of medicine at Prince Henry's Hospital in March 1987 and Professor S M Cordner, professor of Forensic Medicine and director of the Victorian Institute of Forensic Pathology, took up his appointment in May 1987.

Professor N Christophidis was appointed to the Foundation Chair of Geriatric Medicine in August 1987 and will join Monash University on 1 February 1988.

Honorary Associate Professor J W Funder, deputy director of the Medical Research Institute, Prince Henry's Hospital, and Honorary Clinical Associate Professor R C Atkins, director of the Department of Nephrology, Renal Unit at Prince Henry's Hospital, were both appointed honorary professors in December 1987.

### **Postgraduate courses**

The following short postgraduate courses were conducted by the faculty in 1987:

Update course for general practitioners (Department of Community Medicine); Practical course in recombinant DNA technology (Department of Microbiology); Microbiological techniques course for science teachers (Department of Microbiology); Workshop on IVF (Department of Obstetrics and Gynaecology); Unconscious determinants of human behaviour (Department of Psychological Medicine); Psychotherapy: theory and research (Department of Psychological Medicine); Seminars on psychoanalytic theory (Department of Psychological Medicine); Psychoanalytic thinking: unconscious determinants of human behaviour (Department of Psychological Medicine).

### **Inquiry into medical education and medical workforce**

During 1987 a committee of inquiry under the chairmanship of Professor R L Doherty, Pro-Vice-Chancellor (Health Sciences) at the University of Queensland, carried out a review of both medical education in Australia and manpower needs for the future. The submission from the Faculty of Medicine has already been received by Council. The committee of inquiry visited Monash University on Tuesday, 28 July and met with the Vice-Chancellor, the dean of the faculty and representatives of the faculty and of the Association of Monash Medical Graduates. The committee also conducted a workshop on 11 and 12 November which was attended by Professor G C Schofield, Professor B G Firkin and Dr J E Murtagh representing the Faculty of Medicine. During the workshop particular interest was expressed in the pattern of teaching in community medicine developed at Monash University which was identified as a model suitable for use at other Australian Medical Schools.

In its submission the Faculty of Medicine took the opportunity to make a statement which emphasised its educational goals and achievements. On the basis of any criteria the overall standard of medical practice in Australia is very high indeed, and graduates in Medicine from Monash University have played their part fully in the development and maintenance of these standards.

The report of the committee of inquiry will be released during 1988.

### **Teaching hospitals**

On 9 September 1986 the Victorian State Minister for Health, Mr David White, announced that he had accepted a recommendation from the Chief General Manager of the Health Department Victoria that three hospitals affiliated with Monash University, the Queen Victoria Medical Centre, Prince Henry's Hospital and Moorabbin Hospital, should be amalgamated to form a Monash Medical Centre, with effect from 1 January 1987. On present planning the centre will comprise 600 beds at the site on which 436 beds have already been constructed to accommodate the new Queen Victoria Medical Centre, and 210 beds at Moorabbin where the present Moorabbin Hospital occupies 100 beds approximately. In association with this development, Dandenong and Frankston Hospitals are to be upgraded as major teaching hospitals affiliated with Monash University, enabling Western General Hospital to re-establish its former relationship with the University of Melbourne.



During July 1987 the Queen Victoria Medical Centre was relocated to the 436 beds at what is now the new Monash Medical Centre in Clayton Road, a short distance from the Clayton railway station and within comparatively easy reach of the University. Current planning envisages that components of Prince Henry's Hospital will be relocated around 1991 into the 610 beds at the Monash Medical Centre available for activities other than in Obstetrics and Paediatrics. The mix of specialties at the Clayton and Moorabbin campuses of the Medical Centre have yet to be determined in precise terms but it is feasible for the specialist units, including the University departments of Medicine, Surgery, and Psychological Medicine to be located at Clayton, and general medicine and general surgical units located at Moorabbin.

In association with the development of the Monash Medical Centre, Dandenong Hospital, and also Frankston Hospital which has now determined to affiliate with Monash University, are to receive resources to enable each to cope with rapidly expanding commitments in the eastern and south-eastern regions and undertake a more substantial role in undergraduate teaching for Monash University. Specialist Units will need to be developed at both Dandenong and Frankston Hospitals and facilities for undergraduate teaching improved but both hospitals will play a highly significant part in the undergraduate teaching program in the future.

For some years Box Hill Hospital, which prior to 1987 was affiliated with Melbourne University for teaching in Medicine and Surgery and with Monash University for teaching in Obstetrics and Paediatrics, was anxious to become affiliated with one University only. Following the decision of Geelong Hospital to affiliate with Melbourne University, with effect in 1990, Box Hill Hospital entered into an agreement for full affiliation with Monash University which was signed in December 1987 and will take effect on 1 January 1989.

### Research funding

Funds obtained by the faculty in 1987 for new and continuing projects totalled \$7 429 709, comprising \$3 730 003 from NHMRC (project grants \$2 723 161 and program grants \$1 006 842), \$245 596 from ARGS, \$446 500 from the University Special Research Fund, and \$3 007 610 from other sources.

### Student numbers and faculty capacity problems

A slight shortfall in terms of meeting the 1986 faculty target enrolment, expressed in EFTS, together with the allocation to the faculty of a higher target enrolment for 1987 required a substantial boost to the first year intake of new students. Given commitments to previously admitted students, a faculty is reliant upon variations in its intake for the management of its total student number from one year to the next.

The 1987 first year enrolment was, as a consequence, an unprecedented 860 students, up from 680 in 1986. The faculty target, which as from 1987 is expressed in EFTSU rather than EFTS, was achieved with the slightest of margins, justifying the need for the strong increase in intake.

The record first year enrolment, the likely consequences of which were discussed by the faculty board late in 1986, caused significant pressures in various departments. The traditional quota in Biology 101 was effectively suspended and other first year quotas in Computer Science and in Psychology were relaxed, with the departments concerned making special efforts to accommodate what was perceived as a peak number of new students. First year Biology and Chemistry laboratories were filled beyond traditionally agreed capacity and the faculty ran out of lecture theatre space during normal teaching time. Tentative moves have been made in the past to utilise the 8.00 am timeslot for lectures and in 1987 several lectures were scheduled for this early time. Given the public transport system serving the campus, there are obvious concerns associated with lectures at this early hour, particularly for first year students, who are assumed to have to rely more on public transport than later-year students.

Towards the end of the year, consideration was given by the faculty board to the consequences of the large cohort of first year students proceeding to later year subjects in 1988 and 1989, with several departments finding that they were running out of capacity. These departments, notably biomedical departments in the Faculty of Medicine, indicated the need for the imposition of subject quotas which had not previously to be contemplated. It is clear that such quotas are undesirable from the point of view of students and that it is incumbent on the part of the faculty to ensure that even relatively weaker students have a range of viable avenues for completing their degrees.

Whereas the faculty does not expect to need to take as many first year students in 1988 to reach its target, the Government seems committed to a continued expansion

### FACULTY OF SCIENCE

Dean: Professor W R A Muntz BA DPhil Oxon. FRSE

of student numbers in advanced education, particularly in science and technology. Our 1987 experience has shown that the faculty is facing capacity problems and requires a substantial augmentation of its infrastructure and general teaching resources to assist in any endeavour to raise student numbers further.

The total faculty enrolment, in EFTS terms, was 2 883 in 1987, up from 2 595 in 1986. The University has now decided to express its enrolments in EFTSU, which differs from EFTS primarily by assigning a value of 1, rather than 2, to each full-time graduate student. The faculty EFTSU for 1987 was 2 582, corresponding to the 2 883 EFTS figure.

### **Overseas full-fee paying students**

Early in 1987 the board of the Faculty of Science agreed to accept overseas full-fee paying students to any of its courses, subject to certain conditions such as that such students should be at least of the same quality as Australian and subsidised overseas students and that they should not displace any students in the latter category.

The faculty decision followed a 1985 set of Government guidelines effectively encouraging the acceptance of students from overseas wishing to pursue studies here, outside of the established Government quota system which had served to limit the number of subsidised overseas students. The faculties of Economics and Politics and Engineering had previously agreed to accept full-fee paying students in response to strong student demand. The Faculty of Science originally considered the possibility of taking this new group of students in 1986, but agreed then to only move after the other two named faculties, as it was quite clear that the demand for science places from overseas was not as high as in economics/accounting and engineering.

The acceptance of full-fee paying students, and there are expected to be only very few of them in the faculty as from 1988, will create another funding source for the University and the faculty. However, at the early stages, it would appear that a relatively high portion of generated revenue will be channelled into marketing efforts, but it is hoped that within a few years the portion flowing through to faculty and departmental level, to enable the augmentation of teaching resources, will be of benefit to all students.

### **Undergraduate teaching — developments**

#### *Course offerings*

Two new subjects were added to the range of studies offered by the faculty in 1987, both in the area of Geophysics, namely Geophysics 303 at third year level and an honours course, Geophysics 400. The background to the development of major studies and research activities in Geophysics was given in last year's report.

During the year the faculty approved, for introduction in 1988, a new second year major subject, Genetics 203. At third year level Genetics 303 has been offered since 1971, but exciting developments in molecular biology over the last ten years or so has served to focus more interest on genetics. The faculty board accepted the notion advanced by the Department of Genetics that these developments and the possibilities they opened for the future strongly suggested that intending genetics major graduates should have a more solid background in the discipline than hitherto.

Apart from the above changes in course offerings, the various departments contributing to the teaching of science students would have been active in reviewing and revising their subject material so as to keep their courses up to date and relevant to student needs.

#### *New admission scheme*

In recent years, since the move by the Whitlam Government to remove tuition fees for higher education, there has been emphasis on equality in opportunity for students to enter higher education, regardless of social background. It would appear that the over-representation at university level of students from the higher social strata of society, which has not changed markedly since the mid-1970s, is not a problem for which tertiary selection policies can be blamed, but rather an issue which goes back to the earlier years of schooling and to family attitudes. Nevertheless, universities have been called upon to assist in the redressing of this social imbalance, and at Monash the Early Leavers' Scheme, which provides an entry avenue for some students who have not satisfied the normal university entrance requirements, has been operating for many years.

In order to help further in catering for students who have not prepared for university entrance by taking the traditional Group 1 VCE(HSC) subjects, perhaps for family environmental reasons, and to cast the net further in terms of accepting good students with alternative backgrounds, the faculty agreed to implement a supple-



mentary entry scheme for students having successfully completed a Year 12 qualification which previously would not have qualified them for selection into the University.

This scheme acknowledges that a rising proportion of Year 12 students now choose to pursue other than Group 1 subjects and it also seeks to allow the best of these students who, after all, are interested in university level science studies, the chance to come to Monash. The scheme, which represents a cooperative development with the Faculty of Arts, provides for applicants to undertake both an ASAT test and to sit a special entrance examination. Students are then to be selected on the results of their Year 12 studies, the results of the tests referred to above and on the basis of school reports and recommendations. It is anticipated that, at least initially, few students would qualify for selection under this scheme, as relatively few can be expected to have the necessary background in Mathematics and Chemistry or Physics to have a reasonable chance of successfully completing the course.

It should be emphasised that the scheme is not meant to allow entry to lower quality students, but rather to provide for very good students who can prove that they are good, but who have not prepared for university entrance in the traditional way. It would appear that we should happily accept the notion of a more equitable recruitment of university students in social terms, but that we should not compromise the principle of taking students in order of academic merit.

## Graduate teaching and research

### *Master of Biotechnology course*

As referred to in last year's report, rapid and far-reaching developments in genetics and molecular biology in recent years prompted planning for the implementation of a Masters degree course in Biotechnology.

A first, small cohort of students commenced the course in October 1987. Existing pressure on basic teaching and laboratory facilities led the relevant academic committee to decide, at an early stage, that the course in its first year had to commence in October, after the end of the normal academic year, continuing up close to Christmas and resuming early in January. Thus, most of the coursework aspects of the course would be out of the way when the normal academic year gets underway early in March. However, this pattern of teaching has unfavourable implications in terms of academic staff commitments, and it is envisaged that careful scheduling and planning will enable the teaching of the course to conform to the normal academic year pattern as from the next intake of students.

This course, which aims to provide interdisciplinary training in biotechnology, is based on expertise and resources in the faculties of Engineering (Chemical Engineering), Medicine (Microbiology and Biochemistry) and Science (Genetics), with support also from the CSIRO (Biotechnology). Financial support in the early stages has also been forthcoming from the new University Academic Development Fund.

### *Associate of the Faculty appointments*

On the recommendation of the faculty standing committee on fellows of the faculty, the faculty board, and ultimately the University Council, agreed to the faculty making use of the honorary title 'Associate of the Faculty', in addition to the title of 'Fellow of the Faculty', which had been in use for several years.

Whereas the Fellow appointment is considered more as a mark of distinction bestowed on senior eminent citizens of Science who would be expected to be available for occasional consultation, the new Associate appointment is reserved for eminent persons connected with and quite active in an area of scientific endeavour of relevance to the faculty who could, and should, be called upon for active collaboration with relevant faculty staff. Holders of this new honorary office would be appointed for specified periods of time, up to three years at a time, and would have access to University resources — eg, a library card, where possible, computer resources and some office accommodation. It is to be hoped that this new kind of appointment will serve to strengthen links with other scientifically interested organisations and stimulate research activities.

Three Associates of the Faculty appointments were approved during the year. The appointees were:

- Dr B E Hobbs, Division of Geomechanics, CSIRO and previously Foundation Professor of the Monash Department of Earth Sciences.
- Dr M J Manton, Director and Chief Scientist with the Bureau of Meteorology
- Dr P Vulcan, Director of the new Monash University Accident Research Centre and previously Chief General Manager of the Road Traffic Authority.





### *Research support*

Whereas the faculty continues to be concerned about the fact that many research grants make little or no provision for necessary overheads, it recognises the fundamental importance of the support received by its researchers from a wide range of sources. It is important not only to maximise the funds gained from the traditional, centralist sources eg, ARGS, but to be able to draw on a multitude of sources and where appropriate, to seek support in kind. However, departments and research groups who are very successful in attracting support often find their infrastructure under severe pressure and exert pressure on University-wide resources. The answer may be in the University insisting on adequate overhead provisions within grants and recognised accounting practices explicitly identifying all costs attributable to outside funded research activity.

The table below shows the funds received from the ARGS, the Monash Special Research Grant Scheme and from other sources. Details of the research undertaken, and the higher degrees conferred, are reported in detail in the 1987 *Research Report*.

Department	ARGS	MSRG	Other grants	Total
Botany	26 526	13 100	46 906	86 532
Chemistry	387 595	106 000	507 970	1 001 565
Earth Sciences	231 555	44 500	115 872	391 927
Genetics	103 150	29 500	164 327	296 977
Computer Sci.	18 000	18 000	16 000	52 000
Mathematics	84 350	27 500	26 890	138 740
Psychology	104 926	45 000	129 088	279 014
Physics	236 538	66 500	50 465	353 503
Zoology	31 573	26 000	163 252	220 825
Dean	11 966	7 000	—	18 966
Totals	1 236 179	383 100	1 220 770	2 840 049

### **Staffing**

There have been no significant changes to total staff strength of the faculty in 1987. Nevertheless, a number of new staff appointments and retirements/resignations have occurred, many of which are referred to in the individual departmental reports which are considered to be attachments to this report. These reports also refer to the many and varied activities of faculty staff, in terms of committee services, special appointments and outside community research and educational roles.

At the faculty level, Professor B O West was re-appointed for a further one year's term of office as associate dean and, likewise, Mrs N H Williams has continued as subdean. Associate Professor I D Rae continued as chairman of the Committee on Undergraduate Matters, whereas Dr G A Watterson, having served as chairman of the Committee on Graduate Matters for several years, sought to relinquish this office towards the end of the year. Dr D R F Irvine was appointed by the dean as the new chairman for this committee.

### **Organisational changes and planning**

#### *Proposed biology reorganisation*

As a consequence of a number of senior staff retirements/resignations and anticipated future retirements and following on from endeavours by the biology departments concerned to rationalise and upgrade the teaching of first year biology, consideration has been given to a reorganisation of the departmental structure.

In June the Vice-Chancellor gave his in-principle support for investigating the implications of an amalgamation of the departments of Botany and Genetics and by the end of the year the proposal had advanced to provide for the involvement of the department of Zoology. The latest idea, which is under detailed consideration, is for two departments, one department of developmental biology and another for botany and zoology to emerge from the current three departments of Botany, Genetics and Zoology.

The proposal should improve the viability of teaching and research in the biological sciences, serve to attract and hold high quality staff, and generally strengthen the biological disciplines concerned. It is hoped that the reorganisation should be finally agreed and the basic implications resolved early in 1988.

### The Monash plan

The faculty welcomes the Vice-Chancellor's *Monash plan* initiative, which endeavours to provide directions for the future, both for the University in general and, in due course, for the faculty. It is clear that we are living in difficult times, with the knowledge that there will be profound changes in Australia's tertiary educational system. We share the Vice-Chancellor's view enunciated in his document that it is vital that we position ourselves in such a way as to retain control of our own destiny, by setting and continually reviewing goals ahead and developing our planning mechanisms and *modus operandi* to ensure that our activities are focusing on these goals. We look forward to contributing to the formulation of goals and to participating with the rest of the University in achieving them.

After the stresses, both administrative and financial, of 1986, the year felt comparatively relaxed. With the Australian dollar clearly set to remain at its new low value, there was no doubt that a considerable cut in intake had to be made, and especially in the intake of periodicals, whose constantly rising costs were threatening to eat up the whole budget. When the extent of the necessary cuts became clear (about a thousand titles of the 9 000 to which we subscribed) there was a concerted cry of anguish from the teaching and research staff; there is no doubt that many will be severely disadvantaged. It was sad for the library, too, to see some subject collections which certainly had been the best in Australia being reduced to mediocrity. The process has, of course, been going on for some time. One indicator is the direction of flow of inter-library loans: from 1981 our loans to other institutions have been falling; since 1978 our dependence on other institutions has increased. We are still net lenders: loans in 1987 were 20 457, borrowings 9 704.

In fact the outcome on periodical costs was considerably better than expected; but there is still no doubt that the exercise was necessary to maintain a balanced and stable collection program — if current cost trends continue or stabilise, we may even be able to consider new subscriptions without further cancellations, at least for a time.

The Monash library is far from being the only one required to cancel subscriptions, and steps are being taken to reduce the impact. The Victorian Branch of AACOBs is working towards a combined list of proposed or actual cancellations, particularly to prevent the accidental loss of the last subscriptions in the region to important titles. The library itself has taken the initiative in forming with the adjacent CSIRO libraries and the libraries of Telecom and BHP a consortium (called SESTICON) for mutual support and development. It is hoped that access for all research workers in the area will be improved by it.

Though of great potential, the SESTICON move is at present only a small plus in a generally negative situation. There was one major positive move, resulting directly from the McDonnell Report. A library automation committee was set up at the beginning of the year, under the chairmanship of Professor Max King, to assess and make recommendations on the library's requirements. The committee, which included representatives of the Computer Centre and Administration Data Processing produced an excellent report, finding that continuing local development of computer support was no longer cost effective and recommending that the University should immediately proceed to purchase a new computer system for the library, to be funded from Computer Centre and library equipment funds. The recommendations were accepted, specifications were drawn up and tenders had been called by the end of the year. The library owes a debt of gratitude to the members of the committee and the many staff members also involved, for the enormous amount of time they gave to the project.

For the staff in general it was an exceedingly heavy year. The periodical cancellation exercise required a heavy staff commitment, loans were higher than the previous year in all areas (578 463 as against 562 579), and book ordering was much higher, as an attempt was made to catch up on items missed during the restrictions of the previous year. Since our on-approval plan had been suspended, item-by-item ordering was necessary, a very labour-intensive exercise; the selection operation itself was for most of the year the half-time job of the Data Base Administrator. Books catalogued during the year amounted to 30 059 (as against 29 618 in 1986) and a considerable rush of new books, arising from the catch-up operation, arrived in the last few days of the year. Total stock at the end of the year was 1 332 016 volumes.

Acquisitions of note included a further donation by Mr L N Shaw of some 760 Australian children's books, to add to his already wonderful collection; a further instalment of the Paul Hirsch collection, of German and Austrian literature (a gift of Mr F Pam); a Polish collection from Ms J Krol (a Law Library staff member) and another from the Polish government; a substantial Italian collection from the Italian

### THE LIBRARY

Librarian: Mr T B Southwell BA Syd. ALAA



Cultural Institute; and a Byelorussian collection from the Byelorussian Central Committee. A delightful Monash item was *The Buffalo Buster* two issues of a 'newspaper' written and illustrated in 1907-8 by a group of friends, including Sir John, who regularly camped at Mount Buffalo.

The gift was from Miss M Johnson, daughter of one of the group. To these people, to the members of Friends of the Library, and to all our other donors during the year (we received over 6 700 volumes as gifts, and cash donations exceeding \$48 000) we must express our deep gratitude.

The most exciting acquisition of the year was a copy of Jonathan Swift's *A modest proposal for preventing the children of poor people from being a burden to their parents or the country*, the major gap in our collection of Swift's own works, and an item rarely seen in antiquarian or auction catalogues. The purchase was made possible by a special grant from the Vice-Chancellor.

It was gratifying to read in the report of a CTEC review committee on law schools that (in addition to other complimentary remarks) 'no weaknesses or deficiencies showed up by comparison with the other law libraries'. Staff from the Law Library provided bibliographic information to *CLIRS*, *Freedom of Information Review* and *Company and Securities Law Journal*, and almost completed a computer assisted learning package on *Australian Digest*.

In the Biomedical Library too, CAL packages, produced in the Department of Anatomy, are proving their popularity and usefulness. The Biomedical Librarian was much involved during the year with the Librarian of the New Monash Medical Centre as the Queen Victoria Medical Centre was incorporated in it and moved to Clayton. Amalgamation of our branch at the QV with the Medical Centre's own library had begun during the previous year so the move, while complex, was manageable.

The Deputy Law Librarian, Mrs Lee Poh York, relinquished her position for personal reasons after fifteen years, but to our pleasure, remains on the staff. She is replaced by Ms Rosemary Bunnage. The greatest loss of the year, however was that of Mr Doug May, who retired after twenty-four years on the staff, fifteen as Deputy University Librarian, after serving as Hargrave Librarian, then as Librarian of the Humanities and Social Sciences Library. We shall miss his friendship, his instinct for service and his sheer professionalism.

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## UNIVERSITY FACILITIES **Alexander Theatre**

The year was a good one for the Alexander Theatre from almost all points of view. Well over 100 000 people patronised the 333 performances at the theatre, and the diversity of presentations and their audiences ensured that the theatre maintained its very active role in forging links between the University and the wider community.

Productions by University groups slipped to one — MUMCO's enterprising *Merrily we roll along* — though the unusually high demand for bookings for 1988 is reassuring, and points to the unpredictability which has always been evident in the patterns of student theatrical interests. The theatre's presentations for children maintained a standard of which we can be justly proud, though houses for some of them reflected the difficulties which other theatres have had with the new school holiday arrangements. The ballet *Tales of Christopher Robin*, for example, fared poorly at the box office despite the excellence of its young performers and its notices. The Saturday Club remained a spectacular exception to such tendencies, and its programs continue to generate great excitement among a fast-growing band of young subscribers (and their parents). The theatre's status in the field of performances for (and by) children was further confirmed by its hosting of a conference on that subject early in the year; a large number of delegates from other countries and interstate attended both the seminar and the ancillary productions.

The theatre's productions for adult audiences fared rather disappointingly. Roger Hall's *Middle age spread*, a sequel to the outrageously successful *Flexitime*, looked at the fetishes and crises of middle-age with style and humour, but did not enjoy the popularity its concerns seemed to promise; *Agnes of God* achieved a good deal of power, but played to small houses. The problem is an old one for the theatre which remains committed to the initiation of quality professional theatre in the eastern suburbs. Whether its emphasis is 'serious' or 'commercial', the task of establishing a consistent audience for these presentations seems to demand more capital and greater flexibility in long-term planning than the theatre has at present. Among the productions of outside groups, Cheltenham Light Opera Company's *Follies* was perhaps the most impressive, both for its quality of performance and its exploitation of the technical sophistication of the theatre's resources.

The theatre committee has over the last six months undertaken a quite extensive policy review, particularly in the light of the Vice-Chancellor's document, *The*



*Monash plan*, which seeks to take account of its diverse responsibilities to University theatre, the University at large, and the many interest groups in the wider community which it serves. A number of proposals have already been raised with the Vice-Chancellor, in general terms, about possible directions in the future. While the theatre continues to manage its affairs very soundly — it is pleasing to be able to draw attention, for example, to the fact that repayments of the overdraft which enabled the construction of the Theatre Resource Centre are on schedule — the theatre committee is anxious to ensure that the Alex retains its readiness to take risks and to undertake the kinds of initiatives which will continue to bring credit to the University.

I would like to place on record, once again, the committee's appreciation of the efficiency and exceptional dedication of the theatre's management and staff.

### **Careers and Appointments Service**

Busy and exciting are the words that most aptly describe the work of the Careers and Appointments Service during 1987. A strong demand for graduates ensured that contacts with employers would be many and varied, and that employer support for the work of the service would be strong. An initiative worthy of particular comment was the presence of a number of graduate recruiters on campus as specialist careers counsellors, a service utilised by nearly 300 students. Indeed, individual appointments with careers counsellors approached a record at nearly 2 500 for the year. Apart from such well established activities as the Campus Interview Program, the Employer Contact Centre was well supported by employers as were a range of activities conducted by the service, many of which have no immediate bearing upon graduate recruitment. A new development of potential significance is a strong move to form an association of employers of graduates.

Work with undergraduates continued along much the same lines as previously. A series of lunchtime seminars arranged in conjunction with the Chaplains' office with a theme 'ethics in the professions' were well attended. A particular emphasis is being given to extending links with academic staff and working cooperatively with student groups.

Towards the end of the year, announcements were made that the service would be involved in the University's new city office, and that a student recruitment centre would operate as part of the service. The implications of those announcements are still being worked through, and shortage of space has forced some members of staff to share offices. Activities involving potential students have obviously a high priority. The Junior University Program catered for 420 participants, with many being turned away. Careers and Counselling Day attracted record numbers, and an information day for teachers was well attended.

Attractive programs for schools visiting the campus have been developed and the utilisation of the halls of residence and Normanby House for school camps is being actively promoted. The Schools Link Program, through the results obtained by the first intake of students, showed signs that it will achieve the goals that were set for it. In 1988 the Student Recruitment Centre will administer the Special Admissions Scheme and produce a newsletter for circulation to schools, four times a year.

Computers are playing an increasingly important role and are being used for computer assisted career guidance. Data base applications have made course information available for the first time and occupational, vacancy and employer information may be available for use by students within the next twelve months. Efforts are being made to improve the analysis of graduate destinations and presentation of this valuable information as an aid to career decision making and work planning.

### **Health Service**

Perhaps the most significant changes for the Health Service in 1987 were the changes in the University committees and other non-clinical areas which mostly involve the director.

While the director still advises the Parking Committee on the allocation of gold permits for disabled students and staff, he resigned from this committee because of possible conflicts if there were appeals to the committee against his recommendations.

The Safety Committee was also disbanded at the end of 1987. The Health Service is still involved in safety through its contacts with the Occupational Health and Safety Branch and, in particular, with the Safety Officer who at time of writing is still based in the Health Service.

The director is a member of the new AIDS Advisory Committee and remains a member of the Biosafety Committee.

The Health Service has always performed a large proportion of the superannuation and employment medicals for the University, and vets all those done elsewhere.



In September, 1987 SSAU made a visit to the campus. As a result of this contacts were made which have enabled the Health Service to work in closer cooperation with SSAU to the benefit of all parties.

During the year the director was invited to speak to the assistant registrars about the problems with medical certificates — a matter raised strongly in the 1986 Report. While there was no formal action agreed to, one has to assume that it was more than just coincidence that the number of 'silly' requests for certificates has dropped very dramatically.

During the year the Health Service undertook some immunisation programs on behalf of several departments, the most notable being against Hepatitis B. These were done in campus departments where human blood and tissues are being handled.

In August the director, along with Mr Mitchell and Mr McNair of Central Services, visited the casualty department of the Monash Medical Centre in Clayton. Contacts made with Dr Kaan and subsequently other members of staff there have proved to be very useful, and we appreciate the help we have received from the hospital, especially in emergency situations.

The year saw a slight drop in consultations to 21 147 (21 578 in 1986). What at first appears to be a striking fall in the psychological area is an artefact due to a variation in coding by different doctors. In the psychological area the mildest category is 'advice'. It is in this area that all the fall has occurred. On the other hand, 'advice' in the general miscellaneous area has risen by a similar number.

As a result of public awareness about skin cancer more and more people are coming to get skin lesions checked. Several early skin cancers were detected and referred for specialist treatment.

By far the most dramatic change in attendance patterns has been in the area of genito-urinary infections. For the last couple of years some of the doctors have felt there has been a significant change in this area. The coding is such that an exact count of individuals is not possible from the statistical data collected. Genito-urinary infections could be coded in three areas (two for each sex). There are also other conditions which can be coded in these areas and it is also possible for an individual to appear in each code if they present with different infections on different occasions. However, despite these reservations, the addition of the two coded areas should be a very good indication of the number of genito-urinary infections.

The results of the survey show a halving of female students in this area but with a much smaller drop in the males and even less among the staff.

The dramatic change in female infections is almost certainly multideterminate. There was a strong impression that sexual attitudes were changing from those of the 60s and 70s. The publicity given to herpes and AIDS has led to a further review of sexual attitudes by many. For years now the Health Service has emphasised the use of condoms for people not in a steady relationship. A few have chosen this approach. Many more have become more selective about their choice of sexual partners.

As director of the Health Service I feel this supports two things I have tried to maintain over the years. First, that university students are responsible, sensible people, otherwise they would not have gained entry or remained here and that by and large responsible in one area means responsible in other areas. The second is the effectiveness of one-to-one health education. If intelligent members of this age group are given information in a non-threatening non-judgemental manner at the appropriate time while being treated as equals who are capable of making decisions, then they are extremely able at making the correct one on most occasions. The when and the how of such discussions are part of the art of adolescent medicine.

I am far less confident that those who are past adolescence, and whose patterns include unhealthy risk taking, are likely to change to anywhere near the same extent. The fact that the Health Department's Communicable Diseases Clinic has had no decline in numbers in sexually transmitted diseases tends to bear this out.

During the year Sr Margaret Cathro who had been with the Service for six years, retired. During her time here she had expanded the sister's role very significantly. Her friendliness and efficiency made her respected and well liked by both patients and staff. The service has been extremely lucky to have someone of the capabilities of Sr Groom to follow in her footsteps.

#### Monash University Bookshop

During 1987 the bookshop improved its service to the University community by increasing substantially the range of titles carried. For this reason amongst others sales grew by about 20 percent to a little over \$2.5 million. The amount allowed in discount to customers grew even more markedly — by 31 percent to \$175 000. Expenses increased by only 12 percent, and the bookshop was therefore able to achieve a profit of \$169 871. Much of this profit took the forms of increased stock, new equipment and reduced indebtedness to suppliers.



During the year the bookshop began to work with several other Australian campus bookshops to prepare specifications for a computerised inventory system.

### Religious Centre

Members of the chaplaincy for 1987 included Reverend Father Laurence Foote OP, Roman Catholic chaplain; Reverend Philip Huggins, Ecumenical chaplain; Pastor Peter Pfitzner, Lutheran chaplain (part-time); and Mr Anthony Cohen, Jewish chaplain (part-time).

The Religious Centre continues to be used regularly for services, prayer meetings, individual meditation, organised seminars and discussion groups, weddings, baptisms and occasionally for funerals or memorial services. It is also used as a central meeting place for off-campus organisations for religious or musical purposes.

The annual University service, with speaker, Ms Elizabeth Britten from Shelford Girls' School, launched the series of seminars on current ethical issues which continued through first and second terms. In some instances the seminars introduced students for the first time to ethical thinking in relation to their future professional careers.

The Fifth World Assembly of the World Conference on Religion and Peace, which is being supported by the chaplaincy through Philip Huggins, is in its early planning stages. It will take place at Monash in January 1989 and is expected to attract 600 delegates from overseas, representing major world religions.

An interfaith service for the Week of Prayer for World Peace was held in the Religious Centre. It was filmed and interspersed with interviews and footage of Monash to form a promotional film for WCRP v. The film has now been shown in Japan, India, the USA and Europe as well as across Australia.

Fourteen recitals of music were presented during second term and part of third term. A balanced program of organ, harpsichord, piano, vocal, ensemble and orchestral music was provided by interstate, overseas, and local musicians including two student groups from Monash.

Father Foote has been invited by the Ukrainian Eparchy, Bishop Prasko, to spend a year in Rome studying at the Ukrainian University to assist him in his work with Byzantine Rite Ukrainian Catholics in Australia. His replacement will be Father Ephraem Chifely.

### Robert Blackwood Hall

Nineteen eighty-seven saw the Robert Blackwood Hall under the control of a new manager, Mr Harold Karpin, following the retirement of the original manager, Mr Don Vincent, at the end of 1986.

Throughout the year, the Robert Blackwood Hall was used for a total of 140 University functions including graduations, orientation ceremonies, examinations, re-enrolments, career contact for graduates, concerts and a number of public lectures.

In addition, thirty schools or colleges made use of the Robert Blackwood Hall for graduations, speech nights or concerts. Recording sessions increased markedly, including two major commercial film scores.

The ABC made increased use of the venue for rehearsals and recording sessions — from thirty-three to fifty-one, plus their normal six major concerts. A further sixty-eight conferences, religious meetings, competitions or concerts were staged.

A major maintenance project carried out in 1987 involved re-covering of the auditorium seats, as well as a comprehensive maintenance program.

### Students' Grants and Loans Committee

Of the sixty-one loan applications which were considered, fifty-eight were approved in full while the other three were approved in part. The total amount of assistance given was \$122 456.00

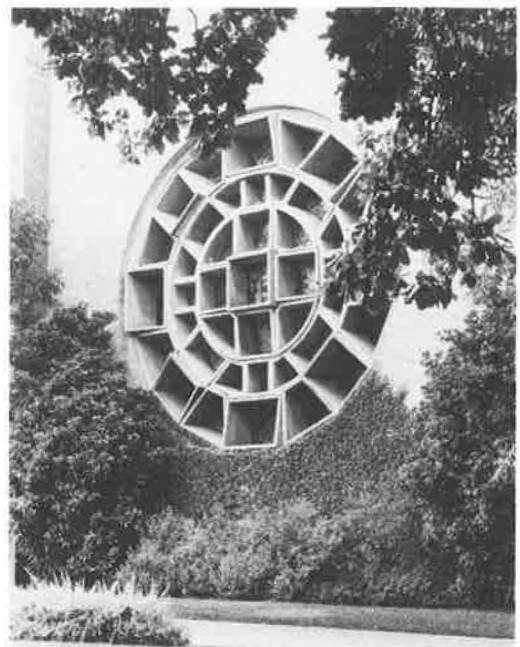
Following the introduction of the Higher Education Administration Charge, short term interest free loans amounting \$139 822.00 were approved for 346 students who required assistance to pay their enrolment fees.

Of the \$865 360 in the three funds administered by the committee, \$472 835.00 was on loan at 31 December 1987.

Mr Hal Skinner, secretary to the Students' Grants and Loans Committee, retired at the end of 1987 after thirteen years of service.

### University Counselling Service

The past year has been an extremely busy year for the University Counselling Service. Stability in staffing and challenging demands on the service have led to a creative work environment and excellent work satisfaction for all staff members.



The number of students and staff using the service on a one-to-one basis increased slightly, but group work and seminar work numbers increased markedly (961 clients used the service in individual counselling and 740 students attended groups, seminars or workshops). Group work centred mainly around study skills, assertiveness training and stress management whilst the seminars and workshops centred mainly on study skills. The counsellors also provided lectures in the Education, Medical and Arts faculties during the year, and presented for staff a seminar entitled 'The psychological and developmental tasks of the tertiary adolescent'. The counsellors value these opportunities to make a contribution to the academic life of the University.

The major problems as first presented to the service continue to centre around personal concerns with identity (22 percent), study skills (18.8 percent), relationship difficulties (17.7 percent) and educational/vocational issues (15.4 percent).

There was a marked increase in 1987 for consultation with and use of counselling staff by various groups on campus. A large amount of time was spent in assisting the Staff Development Officer with training programs for general staff in communication skills, assertiveness training and career planning workshops. Training was provided also for the sexual harassment advisors and a basic counselling skills course was provided for interested academic staff.

### **University Housing Service**

The majority of requests for housing assistance in 1987 were made by overseas students. The demand for staff accommodation was also high and numerous enquiries were received for married accommodation and rooms with cooking facilities.

The opening of the hospital in Clayton has exacerbated the shortage of close to campus accommodation. A problem for 1988 will also be the lack of suitable on-campus accommodation for the greater numbers of postgraduate students expected at Monash.

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## **RESEARCH CENTRES    Centre for Continuing Education**

The program of the centre continued to have much the same structure as in recent years. The Welcare program, based on issues arising in welfare and health care, continues to attract large numbers of participants. Nine out of the eleven activities were oversubscribed — and the two others, for which there was no limit on the numbers attending, attracted seventy-five and 190 people. Clearly, this program has created an established reputation for quality. It is one of the few which is expressly designed to stimulate interaction among people from a range of diverse professions.

A major effort in another field was the International Symposium on Transport, Communication and Urban Form, initiated by the Department of Civil Engineering. Sixty-three delegates attended and papers from nine countries outside Australia, in addition to the large number of Australian contributions, were presented.

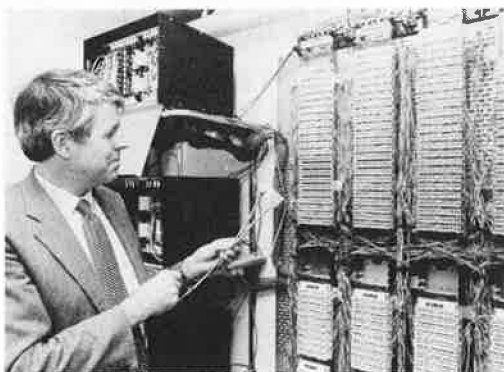
The centre's involvement, as co-host with the Council of Adult Education of the Interhostel program, continues with great success. Interhostel brings groups of forty mature-age adults from the USA to a two-week intensive course on Contemporary Australia. There is sure to be growth in this field of international study tours.

Finally, two firsts for the centre should be mentioned; the first new appointment, for many years, of an additional program coordinator to assist in the growth of the engineering/technology program, and the first occasion on which a member of the centre's small staff has been able to take long service leave. The director was absent for five months and returned, refreshed and very grateful for the achievement of other members of staff in keeping the centre running so effectively during his absence.

### **Computer Centre**

The year of 1987 was generally a successful one for the centre with the computing facilities for the most part meeting the demand for services, the exceptions being undergraduate courses in Computer Science and Engineering near the deadlines for major assignments. There were eight outstanding events during the year:

- the installation in January of the Plessey ISDX Private Automatic Branch Exchange (PABX) to operate the University's internal telephone system;
- the installation of a Digital Equipment vax 8700 computer in March;
- installation of fifty personal computers (IBM AT compatible) in laboratories for use by undergraduates;



- the introduction of equipment to support the clustering of VAX computers which allows several VAX computers to operate to some extent as a single large computer;
- the decision by the University to seek new computer software and equipment to provide improved computer-based systems for the library;
- the purchase of a used Pyramid 90X computer and a used VAX 780 computer at one tenth to one fifth of their original prices;
- the cessation of the Victorian Government's use of the Unisys B7800 computer with the consequent major loss of income and
- the decision to introduce networked microcomputers for teaching in 1988 with the accompanying decision to reduce the amount of B7800 equipment in operation to save power.

The new Plessey PABX was brought into service at the beginning of January after many months of effort on the part of University staff and contractors spent defining the way the equipment was to be set up, checking and testing the existing wiring and installing a substantial amount of new wiring. Considering the magnitude of the task and the considerable amount of detailed work done, the change over from the old electromechanical PABX to the new electronic one went reasonably well but not without a number of problems being encountered. During the year more than one problem was encountered with the PABX, the most serious being an error in its program which caused it to crash when a particular pattern of use occurred. This caused the switch to change processors frequently, calls to be interrupted for about half a second and in one case an interruption to service for about three hours. The final version of the PABX programs which will provide for all the call accounting facilities specified in the contract will be installed during 1988. Having failed to find fully satisfactory computer software for processing the call accounting information generated by the PABX and a directory facility for use by the operators, the Computer Centre designed one. An effective directory system and a basic call accounting system were completed during the year. The full system is expected to be completed during 1988 and form the basis of a commercial product.

The Digital Equipment VAX 8700 computer and HSC 50 shared-disk control and clustering equipment ordered at the end of 1986 was installed and brought into service in March 1987. It is about six times the speed of the VAX 780, has sixty-four megabytes of main memory and approximately four gigabytes of disk storage. The cost of approximately \$1 400 000 was met from the 1986 and 1987 equipment grants plus a contribution of \$200 000 from the centre's outside earnings fund. Access to the 8700 has been restricted to University staff and research students and a small number of external clients. Consequently there was a considerable improvement in the level of computing service provided for research activities. Since installation, the processor of the VAX 8700 has rarely been idle, having a constant load of large-scale research calculations round-the-clock. The shared disk and clustering equipment allows four VAX 780 computers and the VAX 8700 to access a common set of files and this has resulted in a number of advantages. It achieves load sharing between the VAX 780 computers as people can use any of the four VAX 780 computers to access their files. In addition, the VAX 780 computers are able to select work from queues of tasks common to the VAX 8700 and are thereby kept fully utilised. There is little doubt that purchasing the VAX 8700 instead of alternatives offered by other manufacturers was both a popular and correct decision on the part of the University.

The Computer Centre participated in a study of the requirements of the library for improved computer-based systems which resulted in tenders being called at the end of the year. It is expected that the project will require significant technical support from the centre during 1988, a task to which it is fully committed. A new computer for the library is likely to require all the funds allocated to the centre for equipment purchases in 1988.

Toward the end of the year the centre became aware that Flinders University wished to dispose of a Pyramid 90X computer which we acquired for \$50 000 using funds initially allocated for the purchase of a computer for the telephone information management system. Allocation of a VAX 750 running Unix to that task and introduction of the Pyramid computer to replace the VAX has resulted in a significant increase in the Unix computer power available to staff and students. Maintenance costs of about \$30 000 per annum were a major reason for Flinders University disposing of the machine. As the centre maintains most of its equipment, it is able to operate such a machine for an additional cost of about \$5 000 per annum. A similar situation arose with a VAX 780 computer owned by Adelaide University which was acquired for slightly less than \$20 000. It is expected that the centre will acquire additional used VAX 780 computers in 1988 using some to improve services and some as a cheap source of spare parts.

A severe, but not unexpected blow to the centre's finances occurred in July when the Victorian Government ceased using the B7800 computer system. The centre lost a contribution of some \$192 000 per annum towards its operating costs and income



to the Computing Research and Development Fund ceased. Almost all the balance of the fund was allocated to research projects making the total allocation since its inception about \$364 000. The loss of such a major source of income will have to be compensated for by reducing the amount of B7800 equipment in operation, reducing the hours it is run, developing alternative sources of revenue and reducing the number of staff. The latter action is particularly depressing for staff of the centre when they continue to face an increasing demand for services.

Grants from the Computing Research and Development Fund totalling \$152 000 were made in 1987 as follows:

- Dr Ng (Electrical Engineering) Three dimensional imaging system \$53 000.
- Professor Jarvis (Electrical Engineering) Robotic research \$8 000
- Professor Brown (Electrical Engineering) Vision systems \$2 000
- Dr Pang (Electrical Engineering) Echo cancellation system \$21 000
- Mr Clarke (Computer Centre) Telephone information management system \$35 000
- Mrs Cottingham (Computer Science) Computer aided design system \$32 400.

A combination of pressure to reduce operating costs of the B7800 and the need to improve the computer technology to which students are being exposed, led to the decision to install for 1987, eighty personal computers connected by a network to a file server. IBM compatible microcomputers with monochrome Hercules graphics and thin-wire Ethernet adaptors were ordered. The file server is a Corvus computer which operates Novell software. A major use for the equipment will be teaching students of mathematics who will gain some experience of computer graphics which was not possible with the B7800 computer and the particular terminals used with it.

The teaching activities of the centre involved providing service courses for other departments, teaching in collaboration with departments, short courses and a consulting service for students and staff. Six courses were taught for Electrical and Computer Systems Engineering, three for Computer Science and one for Mathematics. In addition a number of short computing courses were given on a range of topics which were mainly of interest to staff and research students.

The centre continued to invest effort in the further development of the MONET local area network. An x.25 communications interface was completed and substantial progress made in redesigning the network node to reduce the number of components and increase its performance. It will be possible to incorporate some modules of the new equipment in old nodes, thereby improving the capability of the campus network and extending its life.

Substantial progress was made in exploring alternative designs for a Telephone Information Management System (TIMS) and a design was selected for a system for the University. It is intended that it will form the basis of a commercial product. Several components of the system were completed and have been providing a unique directory system connected to the PABX consoles as well as basic call accounting facilities. The directory system replaces the conventional PABX operator console display with a computer display and automatically shows the operator names associated with extension numbers. Macquarie University has installed the current version of the TIMS system.

Research into image processing techniques for the automated sorting of diamonds was brought to a successful conclusion with the demonstration of a potentially effective technique for automatically classifying diamonds by their shape. Mr Scott Samuel, who was working on the project has joined CRA in the expectation of exploiting his findings by designing a sorting machine.

In addition to maintaining existing software and providing technical assistance to many members of the University the programming staff of the centre worked on a number of new developments in the following areas: networking, TCP/IP for VAX computers, VAX cluster performance analysis, x.25 MONET software, telephone information management system, personal computer printing program for using networked printers, Tex software, Dest page reader and a digital camera.

The maintenance engineering staff kept sixteen VAX, three Pyramid and a triple processor B7800 operating around the clock. They also maintained the MONET digital data network which has eighty nodes and about 3 000 ports, numerous microcomputers, printers and terminals. New developments involved: extension of VAX memory using a locally designed modification, training of engineers in Boston, interconnection of the MONET network and the new PABX, installation of an optical fibre Ethernet connection between the Computer Centre and the Humanities building, installing networked personnel computers and refurbishing second-hand VAX 780 and Pyramid computers.

A total computing budget of \$2 520 410 (non-discretionary funds) was distributed to departments for the purchase of computing services from the centre. All departments received the allocations requested. During the year additional allocations were made to bring the total to \$2 901 060 compared to \$2 355 410 for

1986. This relatively large increase is largely explained by the introduction of the VAX 8700 computer.

There were approximately 9 800 current account codes in 1987, of which 8 100 were for undergraduates and 1 700 for staff and postgraduate students. The total number of different people using the centre's facilities during the year was approximately 8 000, an increase of some 1 400 over 1986.

The total University FSI budget allocated to the Centre for 1987 was \$1 971 008. Of this about \$200 000 was spent on teaching and support services which cannot be included in the cost of time on the main computers. To break even, the centre should have recovered \$1 762 199 rather than the \$2 753 537 billed at the prevailing rates. A rebate of 36 percent was therefore made at the end of the year.

There was a growth in computing activity of more than 25 percent over 1986 which allowed the rates charged to be reduced. The rate for processor time for the second shift was reduced by 33.3 percent, and for the third shift 40 percent. Terminal connect time rate was reduced from 30 cents to 10 cents per hour and disk storage from 30 cents per megabyte per day to 10 cents per megabyte per day. Growth in computing activity has occurred both in the teaching of computing techniques and in research. Introduction of laboratories with a total of fifty personal computers for use by students represents another increase in computing activity which cannot be measured by the accounting system. With the planned introduction of a further eighty personal computers in 1988 accounting for the use of computing resources will become more difficult and less accurate.

A breakdown of the expenditure of the centre in 1986 and 1987 into a few broad categories is shown in the marginal table.

The financial statement above reflects activities of the centre in 1987, and shows equivalent figures for 1986. It balances with the reporting of the University's accounting system (MARS) but it does not show the full expenditure on consumables or the income obtained from maintenance services to University departments which amounted to \$144 478. The latter was used in part to cover the costs of consumables and in part for salaries. In 1988 the centre's accounts structure will be modified to show the income from maintenance services and the associated costs. The total expenditure of \$3 242 136 shown in the summary is approximately \$100 000 low because of this apparent reduction in the cost of consumables through monies recovered from departments.

The available budget (non staff) of \$406 532 in 1987 was inflated by an amount of \$183 612 for salaries which the administration chose to inject into the non-staff budget. Exchanging \$30 000 of FSI monies with other departments resulted in a reduction in the amount of FSI funds recorded as being spent on salaries and an increase in the University recurrent funds allocated to salaries. Cooperating with other parts of the University to provide a mechanism for converting FSI monies to FSI monies is done only with the Comptroller's approval. While it tends to help solve financial management problems it also has the undesirable side effect of distorting the centre's accounts.

The balance of \$764 868 in the outside earnings fund at the end of 1987 includes \$154 399 in the CRDF which had been allocated but was unspent. The amount available to the centre for other purposes is \$610 469 compared to \$422 113 at the beginning of the year. This is a most fortunate result. A decrease in the balance was predicted in the 1986 annual report but at the time it was written it was not known that the Government's use of the B7800 would last until the end of June. During 1988 the balance in the fund can be expected to decrease, though efforts are being made to reduce expenditure and to increase income.

Royalties paid by Racal Electronics for MONET to the end of its financial year (31 March) came to \$66 099.10 which does not appear in the centre's accounts.

Total expenditure for 1987 of \$3 242 136 was about \$350 000 more than in 1986. The increase is accounted for mainly by the expenditure on the VAX 8700 computer. Expenditure on salaries and wages increased by 4.1 percent.

1986		1987
1 688 344	Salaries and associated costs	1 758 123
5 479	CSIRO computer time	2 729
204 170	Consumables	178 170
875 099	Equipment purchased	1 202 872
65 863	Software	55 948
18 790	Building and site work	15 794
34 900	CR and D fund transfers	28 500
2 892 645		3 242 136

## Educational Technology Services

On 1 March 1987, Educational Technology Services (ETS) became a separate, autonomous service to the University. This ended a fifteen-year administrative association with the Higher Education Advisory and Research Unit (HEARU).

ETS was given five major tasks to achieve in 1987. These were

- to provide high quality educational technology services to support the teaching, research, administration, public service and public relations activities of the University;
- to manage and provide support services in the Rotunda Lecture Theatres;
- to provide audio services in the Robert Blackwood Hall;
- to generate \$50 000 in income from external sources and
- to generate \$5 000 in income from the provision of maintenance and installation services for audio visual equipment on the campus.

These major tasks were, for the most part, achieved during 1987.

The transition to an autonomous service has been achieved with minimum fuss and disruption to services. There are, however, some questions about responsibility and administration still to be resolved.

The number of services provided by ETS rose significantly again in 1987. Desktop publishing facilities have been added as a new service provided by ETS late in 1987. More than forty original TV productions were completed for clients both on and off the campus during 1987. A guide to ETS services was produced and sent to all academic staff early in 1987.

Equipment and manpower resources to support the teaching program are being stretched beyond capacity right across campus. Much of the equipment in use is getting old and more difficult to maintain and insufficient resources are being made available to replace the equipment used in the teaching program. At present funding levels the situation can only get worse. Pressure is particularly acute in the Rotunda Lecture Theatres where classes are in session from 8 am till 7.30 pm on most days. Some classes are also held during lunch hour. The technicians in the Rotunda provided services to over 6 000 lectures during 1987 as well as providing services to several major conferences.

ETS, like other support services on the campus, is suffering from skill attrition because the University pay scales do not compare favourably with those in the private sector of the economy. The maintenance service for audio-visual equipment is the casualty for 1987 in the ETS operations.

### Graduate School of Environmental Science

In 1987 the number of units taught by the graduate school was twenty and with other relevant units across the campus the number of units available for selection by candidates was 130 (forty-three listed in the 'Details of courses 1987' were unavailable for various reasons).

The course on Applied Ecology and Conservation was offered to undergraduates of the Faculty of Engineering.

Interest in the MEnvSc and DipEnvSt courses continues and a high standard of applicants were available from which to select candidates.

#### Enrolment information

	MEnvSc			DipEnvSt		
	FT	PT	Total	FT	PT	Total
Enrolled December 1986	8	107	115	2	13	15
Number of applicants 1987	31	40	71	15	28	43
Offers made	20	29	49	7	15	22
Acceptances (at 27/1/87)	12	26	38	8	14	22
Total enrolled 30/4/87	21	87	108	4	21	25
Total withdrawn/intermitted during 1987	0	10	10	0	1	1
Graduated 1987	0	15	15	0	2	2
Total enrolled December 1987	24	80	104	10	12	22

#### Research

Seventeen candidates have been involved in project work for which the research reports and minor theses will be submitted in early 1988. Topics studied were:

- Land use management in the Melbourne region
- Water quality in Fiji
- Third world energy
- Visitor management plan for French Island National Park
- Community awareness for salinity control in the Goulburn/Broken River region

- Industry-environment management in the Laverton North industrial area

As well as being involved in supervision of the above research teams, staff have undertaken research into:

- Environmental education, environmental impact assessment and recycling of domestic wastes (Mr I Thomas);
- Appropriate technology and context education and general system theory (Mr F Fisher);
- Effects of soil compaction on early growth of forest species, cost sharing options for salinity control and land capability assessment for rehabilitation (Mrs A Lindsay);

- Theory, methodology and practice of environmental planning, social-theoretical approaches to the analysis of environmental policies and politics, policy strategies for a sustainable society and politics of energy policy issues in Victoria (Mr T Blake)
- Community awareness of salinity and living with appropriate technology (Mr P Cook).

The staff of the school served in a variety of capacities outside the University — as members of community centres, educational advisory committees and committees advising government departments. As usual the staff pursued an active program of submissions to public inquiries, reports to statutory authorities, and papers to conferences of high standing.

### Higher Education Advisory and Research Unit

The main aim of the Higher Education Advisory and Research Unit (HEARU) is the improvement of the quality of education in the University. The unit seeks to achieve this aim through support and advisory services to academic staff in all departments and faculties, either individually or through the organisation of appropriate short courses, on matters related to teaching approaches, assessment, the use of educational media, course design and evaluation. Also through research into all aspects of tertiary education, the unit provides information about innovations and research in higher education to facilitate policy and planning decisions within the University and higher education in general.

HEARU works on a contract basis for government and other external agencies, and has recently completed two national studies in higher education for Commonwealth agencies.

HEARU is a centre independent of all faculties; the director is responsible to a committee, which has the Vice-Chancellor as a chairman. The director is a member of that committee, and of the professorial board.

Full details about HEARU activities and research can be found in the director's annual reports, which are included in the papers of the professorial board and the *Research Report* of Monash University, or by contacting the director, Dr Terry Hore.

### Orientation

The orientation program is designed to serve both as an academic and as a social introduction to life at the University.

For the sixth consecutive year orientation began with an official ceremony for new students in the Robert Blackwood Hall. A warm welcome by the deputy Vice-Chancellor was extended to some 1 400 students present for the ceremony, followed by introductions to the deans of the faculties and members of student services.

After the opening ceremony, faculty introductions were held, most providing lively coffee sessions where lecturers, tutors, and fellow students could meet informally. The Main Library, Hargrave, Biomedical, and Law Libraries each arranged introductory guided tours for prospective students.

The host scheme again proved to be one of the most successful and valued aspects of the orientation program. Some 80 percent of students enrolling on their first day were retrieved by the scheme. This is the highest level of new student retrieval yet.

Encouraged by the Vice-Chancellor's support for orientation, many others contributed enthusiastically to its success. MAS, Clubs and Societies, and the Sports and Recreation Association all worked hard. MAS is grateful to the Vice-Chancellor for his support for the fireworks display which was a tremendous success, and attended by numbers of the general public.

This year, the overall behaviour of students was commendable and more students engaged in activities to day three of the program. The only concern was for Union Night which due to a program including popular bands created some problems.

The 1988 *Orientation Handbook* was extremely well received by both students and staff. The handbook aims to introduce new students to a wide range of University activities, and to promote full participation in the University community. The handbook looked most attractive and the content lived up to the exciting cover.

The orientation lecture focused on three speakers each giving a different and enlightening perspective to the topic 'University degree — a ticket to success?' Speakers included Professor Carl Wood, chairman of Obstetrics and Gynaecology at Monash University, Senator Kay Patterson, senator for Victoria and a member of the Monash Council, and Mr Andrew Daddo, an ex-Monash graduate and star of the ABC television show *The factory*.

### STUDENT ACTIVITIES



## The Union — administration and general

In 1987 the Union operated on an expenditure budget of \$2 253 100 derived from an amenities fee of \$252 for full-time students and \$158 or \$110 for part-time students. From this budget, a surplus of \$111 000 carried forward from 1986 was held in reserve and later used to modify the amenities fee increased in 1988. Subscription rates for all categories of optional membership of the Union and the Sports and Recreation Association were increased by 5 percent.

The main Union development project — the Union social centre (licensed), formerly the Union bar project — progressed slowly while location and funding problems were resolved. The Union board finally decided to locate this facility in the main dining room — thus achieving within one funding package an updated dining facility and a licensed facility. With the assistance of borrowed funds, \$1 million has been allocated from the amenities development fund for the social centre, plus \$200 000 for the installation of a passenger lift to service the three floor levels in the Union building. The building work is scheduled to take place over the 1988/89 summer vacation, subject to a liquor licence being granted.

As overdue renovations in other catering areas could not all be funded from development funds, a decision was made to use recurrent funds generated by the catering operation to finance renovations in the Small Caf. These renovations have resulted in a more efficient and attractive service, and a high increase in turnover. Other renovations, funded from development funds, included remodelling of the servery and replacement of carpet in the Wholefoods Restaurant, and the installation of a skylight in the Lot's Wife office.

The Union food services (including the Catering Department, the Wholefoods Restaurant and the Health Foods Shop) returned a combined deficit of \$14 000 after allowing for \$80 000 expenditure on capital works in the catering outlets. The Health Foods Shop continues to trade strongly under the able management of Mr Murray Pearce. The Wholefoods Restaurant remains a popular and unique service managed by a student committee, but has difficulty in achieving a break-even budget. Other commercial areas, including the Union Shop, had a favourable trading year.

Early in the year the Union board was preoccupied with the future of the Community Research Action Centre (CRAC) which was the subject of an independent inquiry. While the inquiry panel recommended a general reform of the CRAC organisation and constitution, the Union board in June, decided to withdraw its financial and physical support of the organisation. This step was precipitated by two controversial CRAC projects, with political bases, and realisation by the board that CRAC had developed in a direction which was beyond the board's control. In place of CRAC, the board established a new budget area to continue the opportunity for student groups to research 'matters of interest to members of the Union'.

The CRAC issue and recurring moves by some members of the board for amendment to the composition of the board and to the method of appointment and voting rights of the chairperson, led to a general meeting of the Union in July. The meeting was ineffectual because it lacked a quorum. Later in the year, at the board's request, Council agreed to conduct an inquiry into the Union's role in the University (early in 1988) which, it is hoped, will resolve some of the above controversies and will clarify the relationship between the board and the larger student organisations, MAS and MAGS, which are funded by the board but otherwise operate under individual statutes.

The board commissioned a staff member and students in the Graduate School of Management to conduct a survey on student motivation for extra-curricular activities and their expectations from these activities in relation to future employment. A second part of the survey was directed to employer response to extra-curricular interests which graduates might add to their curricula vitae when seeking employment. While the results of the survey do not give precise information on these topics they clearly indicate that both students and prospective employers see value in the experience to be gained through Union and Sports and Recreation pursuits.

The Union and the Sports and Recreation Association subsidised a dental service for students which operates at the Waverley Dental Clinic under agreement with the Royal Dental Hospital of Melbourne. Between May and December 1987, some 300 students received treatment at a subsidy rate of approximately \$22 per visit — the total subsidy being some \$20 000.

Apart from student activities reported below, student theatre had an active year under the dynamic coordination of Jemma Bellham. All theatre groups were involved in productions in the Union Theatre or the Alexander Theatre, skills workshops were held and a number of professional groups were brought onto campus. A popular innovation, conducted by Jemma, was Theatresports — which brought packed houses and encouraged many newcomers to perform. Student radio 3MU maintained a low profile in its basement studio but now claims it is the best-equipped student radio in Australia. It is still pursuing its objective of an FM broad-



casting licence and, in the meantime, obtains air-time on public radio. The student employment and student welfare offices reached a peak of activity and look forward to expansion of their services in 1988.

### Clubs and societies

With the affiliation of a number of new clubs during 1987, the total number of clubs which make up the Clubs and Societies Council now stands at 124.

During the year ended December 1987, the student-elected members of the Clubs and Societies Executive (together with the three non-voting members of staff who are members *ex-officio* of the executive) continued to hold regular fortnightly meetings at which the authorisation and distribution of grant monies were dealt with and voted upon. Due to careful management of funds made available for 1987, the budget figure was maintained. In addition to the regular executive meetings there were two council meetings, an annual general meeting and one 'think tank'.

The services available through the Clubs and Societies Office continued to be well-used, prominently among these being advice to clubs on club problems and, in the case of intending clubs, assistance in getting the club started. Photocopying, stencil cutting, screen printing, use of electric typewriters and numerous other smaller items of equipment (urns, games, etc.) continued to be made available to club members through the Clubs and Societies Office.

The personal computer which was installed at the beginning of 1987 had a number of teething problems most of which were later resolved. Much time is now saved in the production of agendas, minutes, notices for clubs and details of grant applications. An added feature of the new system is its ability to produce large-size graphics which are of assistance in publicising clubs and societies generally.

Staff changes have included the secondment to the Arts and Crafts Centre of Mrs Toni Wallace as assistant activities officer for one year. Her position as general secretary has now been taken over for the period of Toni's secondment by Miss Sandra Harry who was previously the Clubs and Societies office junior. Miss Katie Purvis has been appointed as club liaison officer and Miss Nicole Jones as office junior for 1988.

### Arts and crafts centre

During 1987, the Arts and Crafts Centre experienced a number of difficulties, not the least of which was the University's new phone system which has continued to suffer considerable teething problems. Since the centre relies quite heavily on phone contact with its users and suppliers, the continued 'less than perfect' system was the direct cause of much frustration and loss of revenue.

Staff shortages over long periods of time throughout the year also placed heavy burdens on the remaining staff who worked assiduously firstly, to keep the courses running efficiently and up to established standards and, secondly, to maintain appropriate necessary administrative procedures.

The Melbourne arts and crafts world in general is having to compete hard for a share of the leisure/recreation dollar; this has necessitated much heavier off-campus advertising, which proved quite costly.

On a more positive note, there is a full complement of administrative staff (3.5 persons) at the centre for the next six months. Since continued short-term appointments bring their own problems and frustrations and since two of the 3.5 positions at the centre are six-month and twelve-month appointments respectively, this is still not Utopia. However, it does at least provide a few months breathing space during which it is planned to explore the possibility of installing a computer — to replace the sheer drudgery of the existing manual system.

Also on the positive side, final figures for income and expenditure for the year showed that the centre had come in under the deficit budget approved by Union board for 1987.

To close this brief summation on a happy note, Monash students using the centre during 1987 totalled 1 066 persons. This resulted in cash discounts to them of \$27 523. This trend should continue provided the centre maintains the high standard of quality and variety in the courses and workshops offered, for which the centre is now well known.

### Monash Association of Graduate Students (MAGS)

1987 was a year in which MAGS expanded the scope and volume of the services which it offers to the postgraduates at Monash University.

A full committee of fifteen was elected at the annual general meeting and dinner in April. This committee, in cooperation with the two full-time and one part-time



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members of staff have worked very hard to represent and promote postgraduate interests both within Monash and at the national level.

MAGS continued to provide their regular services of information, support, consultation and social amenity. The combination of effective communication, personal contact and serious research into postgraduate issues has led to an increase in the number of interviews with postgraduates, both individually or as a group. Referrals and enquiries regularly come from academic and administrative staff.

Three entirely new undertakings were embarked upon in 1987. They were the commencement by the MAGS researcher/organiser of a major research project on the factors affecting the successful completion of higher degree studies; the involvement of MAGS in the orientation of postgraduate fellows studying at Monash under the auspices of the International Development Program; and the organising of a careers day for women as part of the affirmative action program at Monash.

In addition to these three, the MAGS committee, researcher/organiser and staff worked on many other issues, the major ones being: the acquisition of the MAGS computer; input into the sexual harassment grievance procedures; negotiating access to a departmental telephone for all postgraduates; occupational health and safety for postgraduates; a submission to the Vice-Chancellor called 'The future of Monash'; a postgraduate housing survey; and the organisation of public speaking classes for postgraduates conducted by the warden of the Union. MAGS also introduced another innovation with its major social function for the year. Academic staff and administrative staff who deal with postgraduates were invited to join in the 'Greek tavern' evening. It was an outstanding success both socially and from a public relations point of view.

The annual postgraduate handbook *Compass* continued to be a valuable source of information for MAGS members. The information content has been complemented by feature articles and reports of research carried out by MAGS. Departments have cooperated in providing information for *Compass* and in its distribution. Academic staff have found it particularly valuable for sending to prospective interstate and overseas applicants to Monash. The regular newsletter *Magnet* has continued to provide a link between all postgraduates, and is especially important in keeping part-time candidates in contact with university life.

MAGS has played an active part in CAPA, the Council of Australian Postgraduate Associations. A member of the MAGS committee was elected to the position of secretary of the national council at its annual conference.

The committee is grateful for the continued support of the Union board and the warden of the Union and for the cooperation and assistance of the academic and administrative staff of the University, both of which greatly assist MAGS as it strives professionally to represent the postgraduate students of Monash University.

### **Monash Association of Students (MAS)**

In 1987, MAS was relatively inactive, in part due to the fact that the administrative executive largely consisted of students whose sympathies did not lie with student unionism, and in part due to the unwillingness of other students to participate in such an inactive atmosphere. Nevertheless, student activism did occur in 1987.

At the instigation of AE chairperson, Nicky Kepert, the issue of MAS constitutional reform was high on the agenda in 1987. All major political groupings favoured an SRC structure for MAS highlighting widespread dissatisfaction with present MAS structure.

1987 was also the year when the subsidised student dental service began operating. This service, which at present is booked up to two months in advance by students, represents the culmination of two years' work by different executives of MAS along with the Director of Sport and Recreation.

Finally, MAS became a member of the National Union of Students at its inaugural conference in December 1987. This conference closed the curtain on the Australian Union of Students and signals a new beginning in the student union movement's activities.

### **Monash University Sports and Recreation Association**

Last year's report noted that early indications were that the recent separation of the association from the Union would be successful. Those early indicators were proved to be accurate and using the level of activity as just one measure it can be said that the association and the University community have benefited from the change.

The number of graduates taking out annual membership of the association continues to increase. Currently some 820 graduate members retain a link with the University through the association.

### *Capital projects*

During the year a contract was let to extend the recreation hall by some 316 square metres. Alterations and extensions to the general office and the fitness/weight training facilities are currently being planned.

### *Financial*

The financial affairs of the association may loosely be divided into two main areas, namely those dependent upon a share of the student amenities fee and those facilities such as the swimming pool, the alpine lodge and the squash and tennis courts which are basically break-even exercises. The total budget now exceeds one million dollars per annum.

It is pleasing to report that expenditure in the first area was within one percent of budget. Although income for the second area is very weather dependent, this too was very close to budget.

### *New initiatives*

The association has taken a keen interest in the development of the National Water Sports Centre at Patterson River, Carrum. This interest is through the involvement of the director on the steering committee for the centre and a financial contribution to the cost of designing a boat storage complex. It is hoped that the association will obtain a presence at the centre which will be of long term benefit to the University.

Other initiatives include the further development of the fitness assessment and advice program. This, together with an extension of the physiotherapy treatment service operating from the sports medicine room, now represents an expenditure of more than \$50 000 per annum on behalf of the general University community.

### *Sporting achievements*

Monash was well represented at virtually every Australian University championship, achieving successes in badminton (women) and men's rowing VIII (Oxford/Cambridge Trophy). In local competition one of the highlights was the Blues Australian Rules Club premiership in C grade of the Victorian Amateur Football Association.

### *Australian Universities Sports Association*

Monash was well represented by rowers, Andrew Cohen, Justin Negri, Marc Howard (athletics), Michael Johnston (diving), who were chosen in the Australian team which competed at the World University Games in Zagreb, Yugoslavia in July.

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### **Private donations and indirect Government research grants**

ABRAMS, MRS I D for University Students' Assistance Fund	150
ACI INSULATION payments December '86 to September '87, for the project: Heat flow through ceilings and roofs of buildings, Associate Professor A Williams (Mechanical Engineering)	8 333
ACI OPERATIONS PTY LTD International Partners in Glass Research (IPGR) for the project: Fibre reinforced glasses, Associate Professor R McPherson (Materials Engineering)	52 500
ACKERLY, MRS S for use in Careers and Appointments Service	200
ACL BEARING COMPANY under agreement to sponsor scholarship for project No. RD114: Research into aluminium bearings with improved mechanical properties, Mr R C Peterson; Associate Professor B A Parker (Materials Engineering)	10 125
AERONAUTICAL RESEARCH LABORATORIES meteorological analyses of Bald Hills' tower data, Professor B R Morton (Mathematics)	9 000
ALEXANDER, MRS R D for use in Civil Engineering	820
ALFRED HOSPITAL for the projects: • Liver preservation and liver transplantation, Mr I E McInnes and Mr C Christophi (Surgery, Alfred Hospital)	5 026

### **GIFTS AND GRANTS**



• Continuing development of techniques for autologous and heterologous skin culture and grafting, Associate Professor J P Masterton and Mr R J Wale (Surgery, Alfred Hospital)	12 687	
• The effects on somatostatin on angiogenesis in experimental colonic tumours, Professor P E O'Brien (Surgery, Alfred Hospital)	14 628	
• Transferring receptors in proliferative diseases and tumours of skin, Professor J W Goding (Pathology and Immunology)	8 000	
• Brain tumour case control study. Relation to organic solvents and electro-magnetic field exposure, Clinical Associate Professor G A Ryan (Social and Preventive Medicine)	8 500	
• for use in Department of Community Medicine	600	
• Hepatic transplantation — hepatic preservation, Mr I E McInnes and Mr C Christophi (Surgery, Alfred Hospital)	10 052	59 493
ALFRED HOSPITAL PETER GRANT HAY RESEARCH FUND for the project: Evaluation of risk of colorectal cancer in first and second degree relatives of patients with colorectal cancer, Clinical Associate Professor F T McDermott, Mr W R Johnson and Sir Edward Hughes (Surgery, Alfred Hospital)	7 937	
AMALGAMATED FOOTWEAR AND TEXTILE WORKERS UNION OF AUSTRALIA to Centre for Molecular Biology and Medicine	250	
AMERICAN CHEMICAL SOCIETY 1987/88 research grant for the project: Intramolecular trapping of carbones generated by pyrolysis of formal precursors of arynes, Dr R F C Brown (Chemistry)	23 665	
AMERICAN CYANAMID COMPANY for research, Professor M T W Hearn (Biochemistry)	71 214	
ANDERSEN AND COMPANY, ARTHUR for use in Careers and Appointments Service	1 000	
ANDERSEN AND Co FOUNDATION, ARTHUR for student group — International Association of Students in Economics and Commerce (Clubs and Societies)	250	
Junior University Program (Careers and Appointments Service)	750	1 000
ANDERSON, Mr J W towards the purchase of a laser-doppler flowmeter, for use in research on the measurement of pain receptor function, Dr R D Helme (Medicine, Prince Henry's Hospital)	10 000	
ANDERSON, N for use in Centre for Biomedical Simulation (Physiology)	75	
ANGLISS (VICTORIA) CHARITABLE FUND, THE WILLIAM for diabetics' monitoring apparatus, Associate Professor R A Westerman (Physiology)	1 000	
to the work of the Dinah and Henry Krongold Centre for Exceptional Children	13 000	14 000
ANONYMOUS		
A R Wallace prize in Zoology	100	
for gastroenterology research, Dr J Lambert (Medicine, Prince Henry's Hospital)	5 000	
for use in Careers and Appointments Service	178	
1986 Prize for Economic Statistics	100	
for use in Faculty of Medicine	50 000	
for use in Faculty of Law	200	
1986 Prize for Obstetrics and Gynaecology	100	
omitted from 1986 report extension of funding for postgraduate student Mr Lui Saejiv (Law)	550	56 228
ANSSELL INTERNATIONAL inaugural 1987 Ansell Scholarship (Medicine)	1 000	
ANTI-CANCER COUNCIL OF VICTORIA 1987 grants:		
PhD research scholarship, Dr K Nelson-Reed (Chemistry)	12 782	
PhD postgraduate medical research fellowship, Dr M Buckley (Pathology and Immunology)	32 026	
for the projects:		
• The gastrin receptor, the cytoskeleton and gastrointestinal neoplasm, Clinical Associate Professor B H Toh (Pathology and Immunology)	30 000	

• Recombinant DNA analysis of lymphocyte differentiation factors produced by lymphoid stromal cells in normal and neoplastic states, Dr R L Boyd and Dr H A Ward (Pathology and Immunology)	36 000	
• Membrane proteins of human plasma cells, Professor J W Goding (Pathology and Immunology)	44 500	
• New platinum and palladium complex antitumour agents, Dr G B Deacon (Chemistry)	59 337	
Establishment grant, Professor P E O'Brien (Surgery, Alfred Hospital)	20 000	
ACCV vacation studentship stipends:		
• Biochemistry	768	
• Chemistry	696	
• Pathology and Immunology	3 288	239 397
APEX FOUNDATION, THE for the projects:		
• Susceptibility of newborn respiratory muscles to fatigue, Dr P Berger (Centre for Early Human Development)	20 144	
• Small nerve fibre damage in diabetes mellitus, Associate Professor R A Westerman (Physiology)	13 100	
• Sudden Infant Death Research Foundation for the project: Regulation of lung volume and the upper airway during development, Dr R Harding (Physiology)	5 000	38 244
ARTHRITIS FOUNDATION, AMERICA American Investigator Award Fellowship stipend for the project: Analysis of Chimeric Class 11/ Class 1 MHC gene products, Dr J McCluskey (Pathology and Immunology)	40 622	
ARTHRITIS FOUNDATION OF VICTORIA, THE for the projects:		
• The movement of proteoglycans in degenerative articular cartilage, Dr W D Comper (Biochemistry)	2 250	
• Mechanisms of cartilage degradation in experimental arthritis, Professor D A Lowther (Biochemistry)	4 500	
• Proteoglycan catabolism in normal and degenerative articular cartilage, Dr C J Handley (Biochemistry)	1 500	
• Role of growth factors in the repair of cartilage, Dr C J Handley (Biochemistry)	2 750	
• The possible role of neutrophil myeloperoxidase in tissue damage associated with acute arthritic response, Professor D A Lowther and Dr M S Baker (Biochemistry)	2 750	
• The use of polymers to minimise the abnormal release of proteoglycans from degenerative articular cartilage, Dr W D Comper and Dr C J Handley (Biochemistry)	3 000	16 750
ASSOCIATION OF UKRAINIANS IN VICTORIA (AUV) towards maintaining lectureship in Ukrainian:		
• members' donations	21 953	
• Joseph and Eugenia Pona Foundation	15 000	
• Association's donation (Slavic Languages)	47	37 000
ASTHMA FOUNDATION OF VICTORIA, THE for the projects:		
• The role of neurogenic inflammation in asthma, Dr R D Helme (Medicine, Prince Henry's Hospital)	9 400	
• Functional length and fatigability of respiratory muscles, Dr A R Luff and Dr D D Hatcher (Physiology)	6 400	15 800
ASTRA PHARMACEUTICALS PTY LTD for use in gastroenterology research, Dr J Hansky (Medicine, Prince Henry's Hospital)	9 000	
AUSTRALASIAN DRUG DEVELOPMENT LIMITED due under agreement for the projects:		
• Synthesis testing and development of analgesic drugs, Professor A Boura and Professor W R Jackson (Pharmacology)	50 500	
• Collaborative studies on synthesis, testing and development of synthetic peptides and peptide analogues showing insulin-like activities, and with relevance to the treatment of diabetes, Professor M T Hearn (Biochemistry)	175 000	
• Synthesis, testing and development of synthetic peptides and peptide analogues showing insulin-like activities and with relevance to the treatment of diabetes, Professor M T Hearn (Biochemistry)	50 000	
• Synthesis, testing and development of antiasthma and antidiabetic drugs, Professor A L A Boura and Professor W R Jackson (Pharmacology)	110 000	
for use by Professor A L A Boura (Pharmacology)	5 000	340 000



AUSTRALASIAN AND NEW ZEALAND ASSOCIATION FOR MEDICAL EDUCATION, THE for use in Psychological Medicine		1 252	
AUSTRALIA COUNCIL			
for purchase of works of art by living Australian artists (Visual Arts)	10 000		
for short term residencies by writers (English)	1 200		
to assist with costs of 'Here and There' exhibition (Visual Arts)	9 500	20 700	
AUSTRALIAN AND NEW ZEALAND ASSOCIATION FOR PSYCHIATRY, PSYCHOLOGY AND LAW to Department of Psychological Medicine			75
AUSTRALIAN ACADEMY OF THE HUMANITIES awarded for overseas travel 1985, Professor C T Probyn (English)			400
AUSTRALIAN ASSOCIATED BREWERS, THE first instalment for the project: Structural alterations in the brain in relation to alcohol intake, Dr S C Phillips (Anatomy)			9 815
AUSTRALIAN ASSOCIATED SMELTERS PTY LTD for the project: Zinc-alloy sheet production by strip casting, Associate Professor B A Parker (Materials Engineering)			5 179
AUSTRALIAN BIOCHEMICAL SOCIETY per Dr M Gould for use in Department of Biochemistry			250
AUSTRALIAN CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION contributors to grant:			
• Albright and Wilson (Australia) Ltd			
• Colgate-Palmolive Pty Ltd			
• Lever and Kitchen Pty Ltd			
for the project: Microbiology of enhanced biological uptake of phosphorus from sewage, Dr R C Bayly (Microbiology)			20 000
AUSTRALIAN KIDNEY FOUNDATION, THE for the projects:			
• G14/87 Mechanisms of glomerular injury induced by deposited antibody, Dr S R Holdsworth (Medicine, Prince Henry's Hospital)			7 000
• G15/87 Early post-operative management can improve renal function after transplantation, Dr P Jablonski, Professor V C Marshall and Dr D F Scott (Surgery, Prince Henry's Hospital)	6 000	13 000	
AUSTRALIAN MEDICAL ASSOCIATION 1986 AMA Final Year Medical Prize			1 000
AUSTRALIAN MINERAL INDUSTRIES RESEARCH ASSOCIATION for the project: Condition monitoring of mineral processing machinery, Mr J S Stecki (Mechanical Engineering)			69 450
AUSTRALIAN NATIONAL UNIVERSITY, THE towards expenses, Committee for Review of Australian Law Schools; fourth instalment, Professor E Campbell (Law)			17 315
AUSTRALIAN ROTARY HEALTH RESEARCH FUND for the project: Upper airway and ventilating responses to prolonged nasal obstruction in lambs during sleep and wakefulness, Dr R Harding (Physiology)			21 500
AUSTRALIAN SOCIETY OF ACCOUNTANTS 1986 Australian Society of Accountants' Prizes:			
• for best First Year Accounting Student	250		
• for best Second Year Accounting Student	250		500
AUSTRALIAN TOBACCO RESEARCH FOUNDATION for the projects:			
• Smoking and immune lung injury, Dr S R Holdsworth (Medicine, Prince Henry's Hospital)			20 000
• Effect of tobacco smoking on lung angiogenic factors, Professor M T Hearn (Biochemistry)			33 413
• The role of polymorphonuclear cell derived oxy radicals in the 'repair' phase of models of emphysema, Professor D A Lowther and Dr M S Baker (Biochemistry)	36 375	89 788	
AUSTRALIAN WELDING RESEARCH ASSOCIATION			
for contract No. 113: Assessment of creep damage in operating weldments as an aid to establishing remnant life, Dr B C Muddle (Materials Engineering)			6 036
for contract No. 113: Assessment of creep damage in weldments of 1Cr/-1/2Mo pressure vessel steels operating at 480 to 540C, Dr B C Muddle (Materials Engineering)	4 050	10 086	

AUSTRALIAN-POLISH FRIENDSHIP CLUB towards costs of Polish language course (Slavic Languages)	350	
BAKER, THOMAS (KODAK) ALICE BAKER AND ELEANOR SHAW BENEFACTIONS for research in the Centre for Molecular Biology and Medicine	50 000	
BARBER, DR B for use in Community Medicine	560	
BARGER, I A AND M J for use in Department of Physiology	101	
BAXTER CHARITABLE TRUST, PERCY final instalment for the projects:		
• Biomechanical, morphological and biochemical studies of repair in the sheep anterior cruciate ligament, Dr B Oakes (Anatomy)	1 000	
• Design of a prosthetic anterior cruciate ligament, Dr B Oakes and Dr C Edward (Anatomy)	3 000	4 000
BHP PETROLEUM PTY LTD 1986 BHP Petroleum Honours Prize in Earth Sciences		500
BIOCHEMTEC PTY LTD to continue melatonin research, Dr R Nowak; Professor R V Short (Physiology)		9 000
BIOTECHNOLOGY AUSTRALIA PTY LTD for the project: The cloning and production of inhibin in microbial cells, Dr R Forage; Professor D de Kretser (Anatomy)	159 233	
for reproductive research, Professor D de Kretser (Anatomy)	7 500	
for the inhibin project:		
payments		
• Zhang Zhiwan	5 250	
• A Torney	10 500	
• L Sadler	9 832	
Professor D de Kretser (Anatomy)		
ESP collaboration research, Professor D de Kretser (Anatomy)	50 000	
part cost of refrigerated centrifuge for ESP research, Professor D de Kretser (Anatomy)	13 066	255 381
BLAKE AND RIGGALL for research costs, Dr G B Deacon (Chemistry)	500	
renewal of sponsorship for Centre for Commercial Law and Applied Legal Research	5 500	6 000
BOARDMAN, W for use in Department of Anatomy		200
BOBY AND CO (AUSTRALIA) PTY LTD, WILLIAM 1986 prize in Chemical Engineering		350
BONGIORNO LIMITED 1986 bursary awards	2 000	
for purchase of a computer, Professor N Carson (Community Medicine)	5 000	7 000
BP MINERALS AUSTRALIA first half yearly instalment for the project: Experimental measurement of Pt C1 solubility in chloride solutions up to 360 degrees C, Dr M S Bloom (Earth Sciences)		7 500
BRADLEY, PROFESSOR D proceeds from strawberry picking and barbecue (Law Library)		41
BROCKHOFF FOUNDATION, THE JACK for project: An evaluation of the genetic normality of mouse embryos derived from cryopreserved and vitrified oocytes, Dr I Kola (Centre for Early Human Development)	37 372	
for research in the Centre for Molecular Biology and Medicine	25 000	62 372
BROKEN HILL ASSOCIATED SMELTERS, THE The BHAS Postgraduate Scholarship in Non-Ferrous Metallurgy second year for the project: Chloride-sulphate leaching kinetics of chalcocite-type materials, Miss L Lee; Associate Professor F Lawson (Chemical Engineering)		8 833
BROKEN HILL PROPRIETARY CO LTD, THE CENTRAL RESEARCH LABORATORIES expenses for the project: Seismic modelling and tomographic imaging,		
• research assistance	12 000	
• travel	3 000	
Dr S Edwards (Earth Sciences)		
to supplement research scholarship stipend, 1987	3 970	



personal accident insurance premium project: Multivariable control of a Sendzimir Mill, Mr Lee Lou Fei; Dr C S Berger (Electrical Engineering)	241	
funds for first year, under collaborative research agreement, for the project: Recovery of gold and other precious metals from solution, Mr W H Jay; Associate Professor F Lawson (Chemical Engineering)	20 500	
Melbourne Research Laboratories for the project: Methods of strengthening thermally sprayed coatings, Dr C C Berndt (Materials Engineering)	5 000	
grants in aid for rolling mill studies,		
• Ramakrishnan, Mr T	10 970	
• Wong Mr	10 970	
• (Materials Engineering)		
research scholarship 1987/88 for the project: Fundamental aspects of plasma coating technology, Mr P Cheang; Associate Professor R McPherson (Materials Engineering)	10 970	
1986 BHP Proficiency Prize (Materials Engineering)	200	
for rolling technology research, to support the second of two students for one year, Dr P F Thomson (Materials Engineering)	10 970	
additional support for roll stress analysis, Dr J R Griffiths (Materials Engineering)	9 142	
extension of Scholarship for Mrs M-N Wang for project: Fatigue and fracture toughness research, Dr I R Griffiths (Materials Engineering)	3 650	101 583
BTR NYLEX LIMITED		
1986 Vacation Report prize	50	
1986 prize for Materials Engineering	200	250
BUCKLAND FOUNDATION, THE WILLIAM for the projects:		
• Pathology and immunology of graft rejection in pancreatic allografts, Professor V C Marshall (Surgery, Prince Henry's Hospital)	3 600	
• Equipment for project re the small nerve fibre damage in diabetes mellitus, Professor R A Westerman (Physiology)	3 400	
• Proteoglycan catabolism in normal and degenerative articular cartilage, Dr C J Handley (Biochemistry)	8 000	
• Measurement of nociceptor function in patients with injury induced pain syndromes, Dr R D Helme (Medicine, Prince Henry's Hospital)	10 300	
• Application of photodiode array detection to polypeptide structural studies related to pituitary glycoprotein hormones and heparin-binding growth factors, Professor M T W Hearn (Biochemistry)	5 000	
• The contraceptive effect of breastfeeding, Professor R V Short, Dr P R Lewis and Dr M B Renfree (Physiology)	7 500	
• Regulation of the Transferrin Receptor in health and disease, Professor J W Goding and Dr P A Gleeson (Pathology and Immunology)	8 500	
• Isolation and characterisation of the human Fc Factor receptor, Dr E Benson (Pathology and Immunology)	6 500	52 800
BUNELL, M for use by Department of Zoology	50	
BURCHILL, SISTER E to Elizabeth Burchill Fund (Arts)	10 000	
BURONGA HILL PTY LIMITED HUNGERFORD HILL VINEYARDS PTY LTD for the project: Growth of yeast contaminates at low pressure, Dr G F Cross and Dr J May (Microbiology)	6 000	
CRA EXPLORATION PTY LIMITED		
to fund excursion for third year students, which will include substantial regional mapping component	750	
Mapping Prize for best mapping project for excursion (Earth Sciences)	250	1 000
CSL-NOVO PTY LIMITED first payment to establish CSL-Novoo Nutritional Study Fund, for the project: Evaluation of a new internal feed product in chronic obstructive pulmonary disease, Professor M Wahlqvist, (Medicine, Prince Henry's Hospital)	45 000	
CAMP SCOTT FURPHY PTY LTD for use in Careers and Appointments Service	50	

CARLTON AND UNITED BREWERIES LIMITED 1986/87 for Interferon research, Professor A W Linnane (Centre for Molecular Biology and Medicine)	12 500	
CELGENE CORPORATION 1987 for the project: Genetics of gram-negative micro-organisms, Professor B W Holloway (Genetics)	77 402	
CERAMTECH LIMITED 1986 Brenco Services Prize	150	
CHANDLER AND MACLEOD CONSULTANTS (VIC.) PTY LTD 1986 Chandler and Macleod prize for MA623 Human Resources (Administrative Studies)	250	
CHISHOLM INSTITUTE OF TECHNOLOGY division of funds, between Chisholm and Monash, 1/7/87-31/12/87, Centre for Stream Ecology, Dr P S Lake (Zoology)	9 195	
CITIBANK-ZURICH, SWITZERLAND 1986/87 grant for the project: The biodegradation of aromatic compounds in effluents from coal processing plants, Dr R C Bayly (Microbiology)	32 938	
CLARK, PROFESSOR A C L for use in Department of Paediatrics examination fee donated (Paediatrics)	1 088	
	141	1 229
COAL CORPORATION OF VICTORIA for the projects:		
• The structure and reactivity of Victorian brown coal, Professor W R Jackson (Chemistry)	20 802	
• Steam drying of brown coal, salary and related expenditure	15 000	
• plant, equipment, materials	15 000	
Professor O E Potter (Chemical Engineering)	50 802	
CODNER, DR G P for use in Department of Civil Engineering	1 500	
COLLIER CHARITABLE FUND for the purchase of:		
• microcomputer (Civil Engineering)	4 400	
• multistandard video equipment (Microbiology)	4 600	
• standard video equipment (English)	2 000	11 000
COMALCO LIMITED second year of graduate scholarship period 8/12/1987-7/12/1988 (Materials Engineering)	15 000	
COMALCO LIMITED COMALCO RESEARCH CENTRE for the project:		
• Rolling model computer program graduate scholarship, first year	13 000	
• project maintenance	1 000	
Dr D P Thompson (Materials Engineering)	14 000	
COMMITTEE FOR CHAPLAINCIES FOR TERTIARY INSTITUTIONS contribution towards costs of Chaplain's office at Monash (Religious Centre)	1 000	
CONTROL DATA AUSTRALIA PTY LIMITED prize in Computer Engineering	250	
COOK AUSTRALIA PTY LTD, WILLIAM A technical salary support for research and development into methods for improving in vitro fertilization and embryo transfer (ivf and et) procedures, Dr P Rogers (Obstetrics and Gynaecology)	5 000	
COOPER MEDICAL RESEARCH FOUNDATION LTD, THE REBECCA L for the project: Neurogenic vasodilator responses in diabetes mellitus: evaluation of a new clinical test, by Associate Professor R Westerman (Physiology)	6 290	
COOPERS AND LYBRAND (ACT) PTY LIMITED 1986 Coopers and Lybrand prize (Accounting and Finance)	250	
COTTMAN, ESTATE OF THE LATE W T distribution of income (Medicine)	8 326	
CUMMINS, MR J for use in Aboriginal Research Centre	50	
DAVY MCKEE PACIFIC PTY LTD subscriptions to journals (Hargrave Library)	540	
DEAKIN UNIVERSITY to Department of Psychological Medicine	70	
DELOITTE HASKINS AND SELLS for conference travel: Ms S Ackerley (Careers and Appointments Service)	481	
DEUTSCHE FORSCHUNGSGEMEINSCHAFT GERMAN RESEARCH FOUNDATION for the project: Image of a Continent: a bibliography of German Australiana, Professor L Bodi (German)	14 508	

EARTHWATCH EXPEDITIONS INC. payment of research grant for the project: Fossil dig at Dinosaur Cove, Dr P V Rich (Zoology)		8 194	
EDGE, MR F for use in Department of Anatomy		500	
EDWARDS, MRS J M for use in Library		200	
EGGLESTON, LADY to the Elizabeth Eggleston Memorial Fund		1 000	
EGGLESTON, SIR RICHARD to the Law Library		400	
EGGLESTON TRUST, ELIZABETH to support the MOSA program for 1987 (Monash Orientation Scheme for Aborigines)		5 500	
ELECTRICITY SUPPLY ASSOCIATION OF AUSTRALIA for the projects:			
• Planning and design of controls on an overall system basis to achieve small disturbance stability whilst properly accounting for load characteristics, Dr T Dillon and Dr C Berger (Electrical Engineering)	8 250		
• Microcomputer controlled power switching devices and converter circuits, with application to harmonic suppression and electrical drives, Associate Professor W J Bonwick and Mr D G Holmes (Electrical Engineering)	12 200		
• Calibration of the Victorian lightning location system, Dr D B Giesner (Electrical Engineering)	3 250		
• Order analysis for condition monitoring of variable speed rotating machinery, Mr B T Kuhnell (Mechanical Engineering)	6 000		
• Establishment of an environmental wind tunnel, Professor W H Melbourne, (Mechanical Engineering)	170 000	199 700	
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED reimbursement of expenses for the project: Facies and palaeoenvironmental analysis of the archaean volcanic succession hosting the Golden Grove and scuddles mineralisation, Western Australia, Dr R Cas and Mr B Clifford (Earth Sciences)		3 340	
ELLISON HEWISON AND WHITEHEAD for use in Careers and Appointments Service		150	
ESSEX LABORATORIES PTY LTD for use by Social and Preventive Medicine		20 000	
ESSO AUSTRALIA LIMITED for use in Engineering	1 000		
to assist with graduate placement (Engineering)	3 500		
to each of the five departments within the Faculty of Engineering, \$1 400 each	7 000		
for use in Careers and Appointments Service	200		
under agreement-Contract No. 01589:			
• stipend	7 152		
• thesis allowance	800		
• for the project: Cathodic protection of hot land pipelines, Mr A Gould; Associate Professor B W Cherry (Materials Engineering) second year senior lectureship in geophysics, Dr J Cull (Earth Sciences)	31 500		
for use in Department of Earth Sciences	3 800	54 952	
EVATT MEMORIAL FOUNDATION, HERBERT VERE for use in Monash Orientation Scheme for Aborigines — Students' Welfare Fund (University Union)		7 500	
FAMILY HEALTH INTERNATIONAL RESEARCH for the project: Contraceptive effects of breast feeding, Professor R V Short (Physiology)		7 331	
FELTON BEQUEST, THE for the projects:			
• Assessment of the human sperm acrosome reaction during in vitro fertilisation, Dr R V Hyne (Obstetrics and Gynaecology)	5 000		
• Study of the effect of opiate management programs on infants exposed to opioids in utero, Dr J E Olley (Pharmacology)	5 000		
• Towards equipment for computerised semen analysis. Professor D M de Kretser (Anatomy), Professor H G Burger (Medicine, Prince Henry's Hospital) and Dr A O Trounson (Centre for Early Human Development)	10 000		
• Doppler Assessment of the rate of progression of early atherosclerosis, Professor K A Myers (Surgery, Prince Henry's Hospital)	5 000	25 000	

FIELDS, ESTATE OF E final distribution from the Estate	32	
FIRKIN, PROFESSOR B G for use in Department of Medicine, Alfred Hospital	12 025	
FORSITE LANDSCAPE ARCHITECTS AND PLANNERS PTY LTD towards costs of research, Dr G B Deacon (Chemistry)	500	
FOSSIL COLLECTORS' ASSOCIATION OF AUSTRALASIA for the project: The search for Colliver's Cave, Dr R Baird (Earth Sciences)	100	
GANDEL CHARITABLE FOUNDATION, The final instalment for Krongold Centre for Exceptional Children	2 500	
GANTNER, MRS N for Intervention Studies (Krongold Centre for Exceptional Children)	2 000	
GARVAN INSTITUTE OF MEDICAL RESEARCH ST VINCENT'S HOSPITAL, DARLINGHURST NHMRC grant 860722 80/3517 for the project: The influence of hormones on the growth of human malignant melanomas, Dr D H Barkla and Dr P J Tutton (Anatomy)	19 121	
GAWRONSKI, MR A R for Polish language course (Slavic Languages)	50	
GERAGHTY, MRS M for use in Krongold Centre for Exceptional Children	100	
GHD PTY LTD 1986 Gutteridge Haskins and Davey prize in Civil Engineering	100	
GIST BROCADES N V to Gastroenterology Research Fund, Dr J R Lambert (Medicine, Prince Henry's Hospital)	7 500	
GLADRAGS FOR ABSELP (supporting Aboriginal self help programs) for use in Monash Orientation Scheme for Aborigines — Students' Welfare Fund (University Union)	7 500	
GROSVENOR SETTLEMENT (established by Alan and Hyon Brockhoff) to fund a research scientist for three years, Professor A W Linnane (Centre for Molecular Biology and Medicine)	75 000	
GUTTERIDGE HASKINS AND DAVEY for use in Careers and Appointments Service	250	
HALLENSTEIN CHARITABLE FUND, ROSE E salary for technician — In vitro fertilisation program (Obstetrics and Gynaecology)	1 000	
HECHT TRUST, H AND L balance of grant for equipment (Centre for Molecular Biology and Medicine)	5 000	
balance of grant for three projects: Design of a prosthetic anterior cruciate ligament, Dr B W Oakes and Dr G Edward (Anatomy)	5 000	
Biomechanical, morphological and biochemical studies of repair in the the sheep anterior cruciate ligament, Dr B W Oakes (Anatomy)	5 000	
Human skin epithelial expansion in tissue culture, Dr B W Oakes (Anatomy)	20 000	25 000
HOECHST AUSTRALIA LIMITED Hoechst Polymer Scholarship first half of 1987 grant for the project: Morphology property relations in high density polyethylene, Associate Professor B W Cherry (Materials Engineering)	5 000	
HOLT, D AND L for use by Mr P L Paterson (Obstetrics and Gynaecology)	250	
HUSODO, I to Medical School Jubilee Fund (Medicine)	100	
IBM AUSTRALIA LIMITED 1986 IBM Prize for Third Year Electrical Engineering	200	
1986 IBM prize for Excellence in theoretical computer science	200	
to assist with the visit to Australia of Professor Staidt (Law)	2 000	
1986 IBM prize for Marketing (Economics and Politics)	200	
1986 prize for MA556 computer information systems	200	2 800
ICI AUSTRALIA OPERATIONS PTY LTD consultancy fee, Professor W R Jackson (Chemistry)	1 500	
for research on fibre optic chemical sensors, Professor D G Lampard (Electrical Engineering)	7 338	
grant-in-aid for industrial chemistry 1987	5 000	
salary, Professor A Baklien (Chemistry)	42 498	
scholarship support for Ms H Gountzos for the project: Synthesis of fine organic chemicals and intermediates, Professor W R Jackson (Chemistry)	9 520	

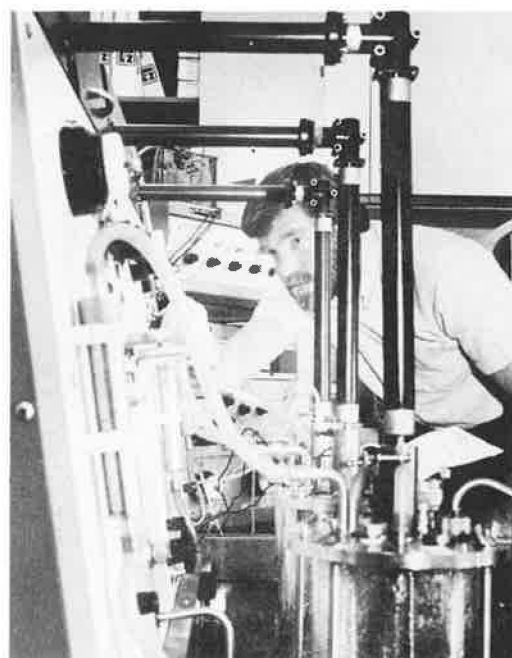


scholarship stipend Mr H A Jacobs; Professor W R Jackson (Chemistry)	5 712	
final payment under research agreement for the project: Biodegradation of hexachlorobenzene, Professor B W Holloway (Genetics)	70 348	141 916
INFERTILITY MEDICAL CENTRE scholarship support to 30.4.87, Mr C Yates (Anatomy)		2 505
INGRAM TRUST, THE M A		
for the project: Co-occurrence of squirrels and sugar gliders, Associate Professor A K Lee and Mr B J Traill (Zoology)	2 000	
1988 grant	1 362	
full payment of grant for the project: Diet and habitat requirements of Bennett's Tree Kangaroo, Mr R Martin; Associate Professor A K Lee (Zoology)	875	4 237
INSTITUTE OF CHARTERED ACCOUNTANTS IN AUSTRALIA, THE 1986 prize for best second year Accountancy student		150
INTERNATIONAL DEVELOPMENT PROGRAM OF AUSTRALIAN UNIVERSITIES AND COLLEGES LTD		
to IDP fellow, Mr S Muralidhar; Professor R T White (Education)	400	
incentive grants to:		
• Professor W A Rachinger (Physics)	2 000	
• Associate Professor A Williams (Mechanical Engineering)	2 000	
• Dr M A Deakin (Mathematics)	500	
• Professor J Warren (Zoology)	500	
• Dr K McDonell (Computer Science)	500	
• Professor J N Crossley (Computer Science)	2 000	7 900
IRONSIDE, EMERITUS PROFESSOR W for the purchase of campus garden bench/seat		300
ISAAC, DR I honorarium donated to Library		250
ISELI, DR I for Silver Jubilee Fund (Medicine)		200
ITALO AUSTRALIAN EDUCATION FOUNDATION for purchase of teaching and library materials to be used in teaching of Italian, Professor B Nelson (Romance Languages)		3 000
JANCEL PTY LTD to Centre for Molecular Biology and Medicine	54 000	
JAPANESE STUDIES CENTRE to teaching programs, Monash Japanese Centre, Tokyo (Japanese)		5 000
JOHNS PERRY LIMITED 1984 Johns Perry Limited prize (Civil Engineering)		200
JOHNSON AND JOHNSON AUSTRALIA PTY LIMITED (DEVRO) first payment under agreement for the project: Determination of the hyaluronate content of the hides of certain animals, (bovine hides) Associate Professor A B Preston (Biochemistry)		10 000
JONES, DR J GLEESON towards L J Gleeson Memorial Prize Fund		150
KALGOORLIE MINING ASSOCIATES for use by Department of Earth Sciences		2 500
KEB AUSTRALIA LTD for use in Department of Microbiology		14
KELLER, DR R J AND MRS J L for use in Department of Civil Engineering		500
KINGSTON CENTRE		
for establishment of Consultative Pain Clinic, Dr R Helme (Medicine)	32 607	
Geriatric Division		
salary for senior lecturer position (Community Medicine)	42 148	74 755
KIRKPATRICK, MRS M K for muscular dystrophy research, Dr L Austin (Biochemistry)		120
KISHIDA, Ms T to Immersion Course (Japanese)		100
KMG HUNGERFORDS		
for use in Careers and Appointments Service	685	
Prize in Accounting	250	
1986 prize for Administration Policy MA635	250	
1986 prize for third year Accounting	75	1 260
LA TROBE UNIVERSITY balance of 1987 grant to fund lectureship in statistical sciences (Mathematics)		2 549

LALOR FOUNDATION, THE for the project: The contraceptive effect of breastfeeding, Professor R V Short and Dr P Lewis (Physiology)	15 996	
LAURENSEN, PROFESSOR E M for use in Department of Civil Engineering	500	
LAW REFORM COMMISSION OF VICTORIA first of two payments under consultancy agreement, for Child sexual assault project No. 2 : Child sexual abuse — an exploratory study, Professor T Brown (Social Work)	15 748	
LIDDICOAT, MRS Y towards muscular dystrophy research, Dr L. Austin (Biochemistry)	60	
LIONS INTERNATIONAL DIABETES INSTITUTE The Royal Southern Memorial Hospital final payment for the project: Biochemical studies in non-insulin dependent diabetes mellitus, Associate Professor M Gould and Associate Professor P Zimmet (Biochemistry)	5 000	
first of two payments for diabetes data analysis project, Professor P Finch (Mathematics)	3 000	8 000
LOWICZ-POLISH VOCAL-DANCING ENSEMBLE IN MELBOURNE, THE towards the study of the Polish language (Slavic Languages)	30	
LYNCH, MR V C AND MRS P R to muscular dystrophy research, Dr L Austin (Biochemistry)	20	
LYONS, J F for use in Faculty of Law	100	
MACQUARIE UNIVERSITY		
ARGS grant for the project: Concerns, needs, attributions and skill levels of Australian adolescents, Professor G Evans (University of Queensland) and Associate Professor M Poole, formerly of Macquarie University (Education)	1 092	
share of 1987 ARGS grant no. A38615754	13 500	14 592
MANIPULATIVE THERAPY GROUP (VICTORIA) for the project: Manipulative therapy research, Mr P Salvaratnam; Associate Professor E F Glasgow (Anatomy)	600	
MARTIN, P J for use in Centre for Biomedical Simulation (Physiology)	75	
MAY AND BAKER AUSTRALIA PTY LTD towards salary costs for S Bishop for the project: Termprost study Dr D Healy (Obstetrics and Gynaecology)	3 000	
MCINNES, MR I E 1986 McInnes prize in clinical subjects (Medicine)	200	
MCINTYRE, MRS K for use in Department of Paediatrics	200	
MCLEAN, MR N A for use in Careers and Appointments Service	40	
MEDDING, MR R 1986 Reuben Medding Prize in Electrical Engineering	50	
MEDICAL ENGINEERING RESEARCH ASSOCIATION scholarship stipend, for the project: Prosthetic ligament development, Mr M Cohn; Dr C C Berndt (Materials Engineering)	5 000	
MENDELSON, B C to Silver Jubilee Fund (Medicine)	1 000	
METHUEN LBC LIMITED royalties payable to Faculty of Law	9	
MICROBIOLOGY, DEPARTMENT OF for use in Department of Microbiology	900	
MITSUI EDUCATIONAL FOUNDATION MITSUI AND CO (AUSTRALIA) LTD for purchase of books for library (Japanese)	1 000	
MOLOPO AUSTRALIA LIMITED for use by Dr R Cas (Earth Sciences)	120	
MONASH EX-COMMITTEE CLUB for use in Library	100	
MONASH MEDICAL CENTRE for use in Centre for Biomedical Simulation (Physiology)	500	
MONASH MEDICAL MOTHERS' AUXILIARY		
for use in the Biomedical Library	1 000	
for use in Community Medicine	500	1 500
MONASH-OAKLEIGH LEGAL SERVICE		
funding from Legal Aid Commission for 1986	13 500	
additional grant for 1987 towards costs of coordinator's position (Law)	1 500	
for use by Dr C Powles (Law)	7 300	
towards costs of running Monash-Oakleigh Legal Service (Law)	3 500	25 800

MOORE, MRS VERA		
for the purchase of one Intecolor 2427D computer terminal, Dr B Chapman (Physiology)	2 000	
to the Library	1 500	3 500
MOUNT GIPPS LIMITED for gravity separation research, Dr J R G Andrews (Chemical Engineering)		4 500
MOUNT ISA MINES LIMITED for consultation/travelling expenses, research project (Earth Sciences)		860
MUCAN DIAGNOSTICS PTY LIMITED		
funds due for 1987/88, Professor A W Linnane (Centre for Molecular Biology and Medicine)	171 750	
supplementary grant for research and development of cancer diagnostic kits, Professor A W Linnane (Centre for Molecular Biology and Medicine)	21 000	192 750
MURDOCH, DAME ELISABETH for use in Library		1 000
MURDOCH TRUST, ELISABETH Associate Professor M Balson for use in Faculty of Education		4 500
MURDOCH UNIVERSITY for use by Centre for Biomedical Simulation (Physiology)		125
MUSCULAR DYSTROPHY ASSOCIATION OF NEW ZEALAND INC. towards purchase of equipment required for muscular dystrophy research, Mr A Gurusinghe (Biochemistry)		3 000
MUSCULAR DYSTROPHY ASSOCIATION OF VICTORIA, THE for use in muscular dystrophy research — salary for Dr H Arthur, Dr L Austin (Biochemistry)		2 377
MUSEUM OF VICTORIA for astronomy research, Dr D Coates (Physics)		1 000
MYERS, DR D N for use in Faculty of Medicine		200
NATIONAL AUSTRALIA BANK 1986 Banking Law Prize		200
NATIONAL CONSOLIDATED LIMITED 1986 National Consolidated Vacation Work Report Prize in Materials Engineering		75
NATIONAL HEART FOUNDATION OF AUSTRALIA equipment grant 1986, for the project: Statistical pedigree analysis of blood pressure, blood lipid and body mass, index data from Levkadian migrant health study, Dr J W Powles, Dr J Hopper and Dr R G Oliver (Social and Preventive Medicine)	1 160	
1987 grants-in-aid for the projects:		
• G2073 — Statistical pedigree analysis of blood pressure, blood lipid and body mass index data from the Levkadian migrant health study, Dr J W Powles and Dr R G Oliver (Social and Preventive Medicine) Dr J L Hopper (Medicine, University of Melbourne)	26 301	
• G2209 — Studies on the low density lipoprotein receptor in patients with atherosclerosis, Professor J W Goding and Dr M A Barnett (Pathology and Immunology)	31 815	
• G2210 — Task and environmental characteristics which elicit cardiovascular hyper-reactivity in type A subjects, Dr K V Jones (Psychological Medicine)	22 787	
• G2211 — Cardiovascular responses to exercise in heart failure, Clinical Associate Professor B P McGrath and Professor J Ludbrook (Medicine, Prince Henry's Hospital)	22 173	
• G2212 — Atrial natriuretic peptide in experimental congestive cardiac failure, Clinical Associate Professor B P McGrath, Dr D Blake and Dr J Funder (Medicine, Prince Henry's Hospital)	19 698	123 934
NISSAN MOTOR CO (AUSTRALIA) PTY LTD for use in Careers and Appointments Service		20
O'BRIEN, DR T AND MRS C for use in University Counselling Service		200
O'DONNELL, MRS M for use in Krongold Centre for Exceptional Children		1 000
O'SHEA FUND, W P AND H E investment income to purchase books (Library)		337
OLIVER, DR R G for use in Library		150
ORCHARD, MR K for use in Monash Geriatric Research Unit Consultative Pain Clinic, Kingston Centre (Medicine)		100

PARKHILL LITHGOW AND GIBSON 1986 PLG Prizes in:		
Financial Accounting	150	
Accounting — Honours	150	300
PFIZER PTY LIMITED		
to Gastroenterology Research Fund, Dr J Lambert (Medicine, Prince Henry's Hospital)	8 350	
to Nutritional Study Fund, Professor M Wahlqvist (Medicine, Prince Henry's Hospital)	1 500	9 850
PHARMACIA (AUSTRALIA) PTY LTD second year of research grant for the project: Development of new HPLC applications for the separation of proteins and peptides (using Pharmacia's separation media and equipment), Professor M T Hearn (Biochemistry)	30 000	
PHILIPS INDUSTRIES HOLDINGS LIMITED 1986 Philips Prize in Electrical Engineering	250	
PHILLIPS FOX		
1986 Alec Masel prize	150	
to the Centre for Commercial and Applied Legal Research	5 000	5 150
PINOS, Mr T honorarium donated for use in Faculty of Law		200
POLISH-AUSTRALIAN CULTURAL SOCIETY towards the costs of the Polish Program (Slavic Languages)		300
POOLETTE HOLDINGS (VIC.) PTY LTD AND ACTION GOLD DEVELOPMENT LIMITED for collaborative research under agreement, Ms C Ng; Associate Professor F Lawson (Chemical Engineering)	15 350	
POTTER FOUNDATION, THE IAN travel grants to:		
• Dr G Rice (Physiology)	500	
• Dr R F C Brown (Chemistry)	500	
• Mr N Cameron (Mathematics)	500	
• Dr P Phahey (Physics)	500	
• Dr R A Cas (Earth Sciences)	500	
• Associate Professor P Dransfield (Mechanical Engineering)	500	
• Dr T R Finlayson (Physics)	500	
• Dr D F Gaff (Botany)	500	
• Associate Professor R G Mein (Civil Engineering)	500	
• Dr P Nagley (Biochemistry)	500	
• Dr P De Dekker (Arts)	500	
• Dr P J M Tutton (Anatomy)	500	
• Professor G S Lister (Earth Sciences)	500	
• Dr R D Helme (Medicine, Prince Henry's Hospital)	500	
• Dr J W May (Microbiology)	500	
• Dr J Kerr (Anatomy)	500	
• Dr T Sridhar (Chemical Engineering)	500	
• Dr G Leder (Education)	500	
for equipment, Dr K Myers (Vascular Surgery, Prince Henry's Hospital)	5 000	
towards the purchase of a bench top refrigerated centrifuge, Dr E Benson (Pathology and Immunology)	5 000	
towards costs of Monash University Gallery	5 000	24 000
POTTER, PROFESSOR O E to Department of Chemical Engineering	160	
POWLES, Dr J W towards clerical assistance (Social and Preventive Medicine)	4 290	
PRATT FOUNDATION, THE for use in Centre for Molecular Biology and Medicine	10 000	
PRAXA PTY LIMITED Praxa 1986 Prizes for computer science — 2 × \$200	400	
PRINCE HENRY'S HOSPITAL scholarship stipend for 1987 Mr G T Ooi; Professor D de Kretser (Anatomy)	7 616	
PROGRAMMED MAINTENANCE SERVICES PTY LIMITED for use in Carcers and Appointments Service	250	
PROK INTERNATIONAL LTD 1986 prize for Mechanical Engineering	200	
QLONE LIMITED under research agreement for the project: Development of new procedures for the purification of monoclonal antibodies supplied by Qlone, Professor M T W Hearn (Biochemistry)	60 249	
QUEENSLAND MINES LIMITED for the project: The geology, petrology and geochemistry of the Caramel Prospect,		





Arnhem land, Northern Territory, Mr V Wall; Miss J Bedford (Earth Sciences)		3 700
RACV for Masters program (Civil Engineering)		2 000
RAMACIOTTI FOUNDATIONS, CLIVE AND VERA		
Wellcome-Ramaciotti travel grant awarded to Dr R C Small (Physiology)	2 900	
for the projects: Use of computerised methods in semen analysis, Professor D M de Kretser (Anatomy) Professor H E Burger (Medicine, Prince Henry's Hospital) and Dr A O Trounson (Centre for Early Human Development)	10 000	
• Circadian rhythms in the newborn infant and nursing mother, Dr I C McMillen and Dr R Nowak (Physiology)	24 459	
• Development of techniques for autologous and heterologous skin culture and grafting, Associate Professor J Masterton and Mr R Wale (Surgery, Alfred Hospital)	11 439	48 798
RANZ COLLEGE OF PSYCHIATRISTS' BOARD OF RESEARCH grant in aid for research, Dr L Seward (Psychological Medicine)		700
RECKITT AND COLMAN PHARMACEUTICAL DIVISION for nutrition research, Professor M L Wahlqvist (Medicine, Prince Henry's Hospital)		10 000
RELIANCE SECURITY PTY LTD for research on cancer diagnostic kits, Professor A W Linnane (Centre for Molecular Biology and Medicine)		78 750
RENISON GOLDFIELDS CONSOLIDATED LIMITED for the project: Characteristics and controls of mineralisation hosted by intrusive and volcanic acid to intermediate rocks, Dr R Cas (Earth Sciences)		500
RESEARCH FUND FOR EARLY HUMAN DEVELOPMENT for the purchase of items which remain the property of Research Fund for Early Human Development:		
• AT DS Graphic Digitiser LC-12 with cursor and stylus, to be confined to Respiratory Medicine Research Unit (Medicine, Alfred Hospital)	2 250	
• 5 EMG amplifiers —	2 240	
• an Eliza Duo Co /0 Analyser — (to remain the property of the Research Fund — (Medicine, Alfred Hospital) (Centre for Early Human Development)	7 000	
towards travel expenses to attend foetal physiology conferences in Japan, Netherlands and United Kingdom, July/August 1987, Dr A M Walker (Centre for Early Human Development)	3 000	14 490
RESERVE BANK OF AUSTRALIA for the project: Effects of soil compaction on selected species in tall closed forests of southern Victoria, Mrs A Lindsay (Graduate School of Environmental Science)		6 710
RICHARDS, MRS E AND KIRKPATRICK, L for use in Duchenne muscular dystrophy research (Biochemistry)		311
ROCKEFELLER FOUNDATION, The full payment of grant 1.7.87 to 30.6.88 for the project: Cloning, sequencing and expression of the genomes of the flaviviruses dengue —2 and kunjin, Professor E G Westaway and Dr P J Wright (Microbiology)		21 392
ROPART PTY LTD (service entity of R I Rosenblum and Partners) for use in the Centre for Commercial Law and Applied Legal Research		1 100
ROSS TRUST, THE R E their company Hillview Quarries Pty Ltd final payment for the project: Molecular biology of Interferon action, Professor A W Linnane (Centre for Molecular Biology and Medicine)		25 000
ROYAL AUSTRALASIAN COLLEGE OF SURGEONS for the project: Somatostatin and angiogenesis, Professor P O'Brien (Surgery, Alfred Hospital)	11 000	
RACS Foundation Union-Fidelity Research Scholarship for 1987, for the project: Preservation of osseomyocutaneous free flaps in the rat, Dr M D Linsell; Clinical Associate Professor D Scott (Surgery, Prince Henry's Hospital)	14 036	

RACS Foundation Broken Hill Proprietary Research Fellowship for 1987, for the project: Studies on goat anterior cruciate ligament repair, Mr I D McLean; Dr B W Oakes (Anatomy)	36 000	
for the project: Efficacy of bicyclists' helmets, Associate Professor F T McDermott (Surgery, Alfred Hospital)	12 000	73 036
ROYAL AUSTRALIAN COLLEGE OF GENERAL PRACTITIONERS, THE		
1986 instalment of the CAPP evaluation budget for MUCAPS (Monash University computer assisted practice systems) Professor N E Carson (Community Medicine)	11 000	
two-year half-time lectureship, joint RACGP/CAPP — Computer Assisted Practice Project: Research and development of computer assisted teaching programs, Professor N Carson (Community Medicine)	8 220	
Family Medicine Program secretarial support for S E region coordinator (Community Medicine)	3 632	
sessional payments, coordinators:		
Moorabbin	3 900	
Dandenong	3 900	
(Community Medicine)		
1987 Community Medicine Prize	250	
for Smokescreen project 'which aims to help smokers to cease smoking and maintain their non-smoking status (it is recommended for the motivated patient)' Dr C Silagy (Community Medicine)	1 300	32 202
ROYAL CHILDREN'S HOSPITAL for the project: Job satisfaction of Registered General Nursing Staff at the Royal Children's Hospital, Dr J McArthur (Education)		803
ROYAL SOUTHERN MEMORIAL HOSPITAL, THE final payment for: Diabetes data analysis project, Professor P Finch (Mathematics)		3 000
SANWA BANK LIMITED, THE final payment of The Sanwa Bank Foundation research fellowship to Mr J C Middleton, studying at Monash Japanese Centre, Tokyo (Arts)		2 267
SCHOFIELD, G B AND WARD, R for materials for early childhood stimulation, Professor M D Neale (Krongold Centre for Exceptional Children)		1 000
SCHRODERS AUSTRALIA LIMITED		
1986 prize for AF214 Business Finance	200	
1986 prize for MA 519 Corporate Finance	200	400
SCHUTT TRUST, HELEN M		
to Monash Orientation Scheme for Aborigines	2 500	
to MOSA Student Welfare Fund	5 000	
towards the cost of equipment for the project: Assessment of the human sperm acrosome reaction during in vitro fertilisation, Dr R Hyne (Obstetrics and Gynaecology)	5 000	
towards purchase of equipment (Anthropology and Sociology)	5 000	17 500
SELWOOD, DR T S		
for use in the Department of Social and Preventive Medicine	9 500	
redirected lecture fee for use in Department of Social and Preventive Medicine	48	9 548
SHELL COMPANY OF AUSTRALIA LIMITED, THE		
Shell prize in Administration 1986	100	
Shell Prize for Chemical Engineering 1986	100	
towards attending course at Stanford University, USA, Ms J Bairs (Earth Sciences)	1 000	1 200
SIDFINCH FAMILY TRUST for use in Library		100
SIGMA PHARMACEUTICALS PTY LTD 1986 prize in Neonatal Paediatrics		100
SILEC PTY LIMITED for use in Microbiology		76
SIMSON EDUCATIONAL TRUST, STUART half share of income from the Trust		1 700
SINCLAIR KNIGHT AND PARTNERS towards costs of Careers Weekly (Careers and Appointments Service)		20
SMITH KLINE AND FRENCH LABORATORIES AUSTRALIA LTD for use in gastroenterology research, Dr J Hansky (Medicine, Prince Henry's Hospital)		5 000

SOUTHWICK, MR G		
for Research into microsurgery and correction of male infertility, Dr P Temple-Smith (Anatomy)	7 900	
for use in Department of Anatomy	2 400	10 300
SPENCER FOUNDATION, THE for research on bibliography, Professor R Selleck (Education)		13 018
SPRINGVALE LEGAL SERVICE COOPERATIVE LIMITED contribution to salary costs of senior tutor (Law)		19 500
SQUIBB AND SONS PTY LTD, E R for use in Department of Social and Preventive Medicine		7 000
STAFF OF DEPARTMENT OF PSYCHOLOGICAL MEDICINE for use in Psychological Medicine		
• Ironside, Emeritus Professor W I	54	
• Mendelson, Dr G	54	
• Smith, Professor G C	52	160
STANDING REVIEW AND ADVISORY COMMITTEE ON INFERTILITY subscription to Bioethics News (Centre for Human Bioethics)		25
STATE EMPLOYED PSYCHIATRISTS' ASSOCIATION 1986 Prize-Fourth Year (Medicine)		100
STEEL MAINS PTY LIMITED 1986 Steel Mains Prize in Chemical Engineering		250
STEWART MEMORIAL FUND, SIR ALEXANDER scholarship payment, Mr A T R Yates and Mr J C K Cheung (Engineering)		9 330
STOLLE, K towards costs of Polish language course (Slavic Languages)		20
SUDDEN INFANT DEATH RESEARCH FOUNDATION postgraduate research scholarships		
• Ms C L Coulter (Physiology)	2 032	
• S A Joseph (Physiology)	2 032	
• Mr S A Joseph; Dr D W Walker (Physiology)	4 063	
• Ms C L Coulter; Dr I C McMillen (Physiology)	8 126	
for the projects:		
• The role of enkephalin peptides in the foetal and neonatal response to hypoxaemia, Dr I C McMillen (Physiology)	16 877	
• Regulation of lung volume and the upper airway during development, Dr R Harding (Physiology)	2 500	
• Sleep arousal and thermal stress in the new born lamb, Dr A M Walker (Centre for Early Human Development)	2 832	38 460
SUDDEN INFANT DEATH RESEARCH FOUNDATION AND 1985 No. 4 MASONIC GROUP for the purchase of equipment (Paediatrics)		600
SUDDEN INFANT DEATH RESEARCH FOUNDATION INC. (SOUTH AUSTRALIA) for the project: Sleep, arousal and thermal stress in the newborn lamb, Dr A M Walker (Centre for Early Human Development)	7 090	14 180
SUNSHINE FOUNDATION towards purchase of refrigerated bench top centrifuge (Pathology and Immunology)		3 000
SYNTHESE AUSTRALIA PTY LIMITED for use in department of Surgery, Alfred Hospital		600
TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT LTD for the project: Investigation into literacy and numeracy needs — electrical mechanics apprentices, Victoria, Dr P Edwards (Education)		2 250
TILEMAN (A/SIA) PTY LIMITED 1986 Tileman Prize for Civil Engineering		100
TOUCHE ROSS INTERNATIONAL for use in Careers and Appointments Service		175
TREMBATH, S A for use in University Counselling Service		25
TYLDESLEY PTY LTD for use in Psychological Medicine		27
UNIVERSITY OF ADELAIDE to Department of Psychological Medicine		132
UNIVERSITY OF MELBOURNE, THE contribution towards costs of Jessup International Mooting Competition (Law)	1 300	
towards printing of <i>Australian Journal of French Studies</i>	400	
subscription to <i>Australian Journal of French Studies</i>	20	

towards salaries for the project: Efficacy of bicyclists' helmets, Associate Professor F T McDermott (Surgery, Alfred Hospital)	5 000	
Department of Russian share of expenses, visiting Soviet lecturer, Mr E Gordeev (Slavic Languages)	3 450	
Gastroenterology Department Royal Melbourne Hospital		
Evaluation of risk of colorectal cancer in first and second degree relatives of patients with colorectal cancer, Clinical Associate Professor F T McDermott, Mr W R Johnson and Sir Edward Hughes (Surgery, Alfred Hospital)	5 000	15 170
UNIVERSITY OF NEW ENGLAND, THE ARGS joint project: Responses of insects to fluctuating temperatures, Dr P C Gregg (Agronomy and Soil Science, UNE) and Dr B Roberts (Zoology, Monash)		4 166
UNIVERSITY OF OTAGO for Professor G C Smith (Psychological Medicine)		117
UNIVERSITY OF OXFORD NUFFIELD CENTRE for joint research program, Dr D Bowden (Anatomy)		4 670
UNIVERSITY OF TASMANIA, THE NERDDC reimbursement of expenses for the project: Catalyst development for the upgrading of brown coal liquids, Professor F P Larkins and Professor W R Jackson (Chemistry)		36 813
VARIOUS DONORS		
for research into Emphysema (Medicine, Alfred Hospital)		
Brownley, Mrs M A	20	
Kenyon, Mr P	200	
Oglethorpe, Mr and Mrs B J	75	295
to Careers and Appointments Service		
Australian Institute of Sport	20	
John Morris Scientific Pty Ltd	50	
Deloitte Haskins and Sells	600	
Catholic Education Office of Victoria	200	
Parkhill Lithgow and Gibson	750	
Australia and New Zealand Banking Group Limited	500	
Mobil Oil Australia Ltd	200	
Duesburys	400	
Coopers and Lybrand	700	
Petroleum Refineries (Australia) Pty Ltd	200	
Siemens Ltd	100	
Australian Timken Pty Ltd	50	
CRA Services Ltd	250	
Reserve Bank of Australia	200	
The National Mutual Life Association of Australasia Ltd	500	
ICI Australia Operations Pty Ltd	500	
Mars Group of Companies Australia	100	
Peat, Marwick, Mitchell and Company	500	5 820
to Jubilee Fund (Medicine)		
Chan, Dr C K Y	455	
Seiler, Dr G T	50	
Tibballs, Dr J	50	
Williams, Dr J R	250	
Schofield, Professor G	2 500	
Duff Medical Pty Limited	300	
Langford, Dr S A	200	
Philpot, Dr J D	100	
Butterworth, Mrs J	10	
Chan, Dr M F	113	4 028
for use in the Krongold Centre for Exceptional Children		
Bale, G J	25	
Farrell, Mr B W	25	
Gerber, H T	20	
Hughes, Estate of the late A R	1 500	
Rose, Dr N R	20	1 770
for Membership of Institute for the study of French/Australian relations		
Association Francophone en Australie	20	
Astbury, M L	20	
Davidson, Professor F	5	
Ferber, Ms H L	5	





French, Department of	29	
Nettelbeck, Dr C W	5	
Pollet de Saint-Ferjeux, Mr	5	
Rosemberg, Mr J	5	
Scott, Dr S	20	
Thornton-Smith, Dr	5	
Forster, B	20	
Simon, Mr P	6	
Tonta, Mr M	6	151
for the purchase of campus garden benches/seats:		
Cochrane, Mrs D and the late Emeritus Professor	300	
Davis, Emeritus Professor S R	300	
Isaac, Emeritus Professor J E	300	
Nairn, Emeritus Professor R C	300	
Taft, Emeritus Professor R and Mrs E	300	1 500
for Prince Henry's Hospital Visiting Staff 1986 Prize		
Daniel, Dr R C	27	
Davis, Dr J M	54	
Davis Pty Ltd, J M	54	
Johnston, Dr J S	54	
Larkin, Dr O F & Mrs S P	54	
Lees, Dr J M and Mrs M E	54	
Rose Pty Ltd, N R	54	
Sheehan Pty Ltd	55	406
to Centre for Commercial Law and Applied Legal Research		
The University of Western Australia	6 000	
National Australia Bank	2 000	
Western Australian University Faculty of Law	1 000	
Ebsworth and Ebsworth	5 000	
Peat Marwick Mitchell and Co.	1 000	
Arthur Robinson and Hedderwick	5 500	
Australian Guarantee Corporation	1 100	
Coles Myer Limited	1 100	
Davies and Ryan	1 100	
George Weston Foods Limited	4 000	
Blake and Riggall	5 500	
Butterworths Pty Ltd	5 500	
Law, Department of	5 500	
Mayne Nickless	1 100	
Monier Limited	5 500	
Telecom Australia	5 500	
Thomson Simmons and Co.	5 500	
Weigall and Crowther	5 000	66 900
to multiple sclerosis research (Centre for Molecular Biology and Medicine)		
Bechaz, P	50	
Bechaz, W	10	
Brown Coal Liquefaction (Victoria) Pty Ltd	50	
Central Gippsland Equipment Hire	640	
Hotchkins, H	10	
Irving, A	20	
Limburger Magpies Ladies Auxiliary	30	
Low, H	20	
Mackie, A and J	25	
Meyer, C and R	10	
Morgan, K C	40	
Palic, M	20	
Pollock, R D	100	
Simon Engineering	50	
Smith, Mrs B	441	
Smith, Mrs B on behalf of various people	2 615	
Wilson, R W	50	4 181
to Psychological Medicine		
Kippington Pty Ltd	54	
Millington, P F	54	
Orchard, W N	54	
Smith, Professor G C	87	
Daniel, Dr R	360	
D'Arcy-Evans, A C	150	

Copolov, Dr D	300	
Keks, Dr N	125	1 184
towards portrait of Sir Louis Matheson, first Vice-Chancellor of Monash		
Butchart, Dr J D	200	
Cuthbert, Dr D D	200	
Dawson, Mrs J A	200	
Ellis, Mr D R	200	
Hiscock, Dr I D	200	
Hunt, Emeritus Professor K H	200	
Legge, Emeritus Professor J D	200	
McDonell, Dr and Mrs J A	200	
Murray, Professor N W	320	
Schofield, Professor G C	200	2 120
to staff prize in Psychological Medicine		
Copolov, Dr D	54	
Keks, Dr N A	54	
Valent, Dr P and Mrs J	26	134
to Polish Language Course (Slavic Languages)		
Malewicz, Mr S and Mrs E	50	
Malynicz, Mr T	25	75
VICTORIA LAW FOUNDATION ABORIGINAL		
Ethnic Communities law curriculum materials project, Professor R Baxt (Law)	19 890	
for the project: Computer assisted instruction in legal education in Victoria, Mr T Pinos (Law)	32 500	
final payment 1984/85 library grant	2 285	
part payment 1985/86 library grant	29 780	
part payment of 1987 grant (Library)	9 541	
for the project: Reforming the law relating to unincorporated associations, Professor R Baxt (Law)	4 000	
Criminal Justice Committee for joint project: Audio and video-recording of police interviews, Dr D Thomson (Psychology)	23 191	121 187
VICTORIAN NURSING COUNCIL final payment due under research agreement, for the project: Ethical, legal and social dilemmas in the practice of nursing, Dr H Kuhse and Dr M Brumby (Centre for Human Bioethics)		
		11 192
VICTORIAN SECONDARY TEACHERS' ASSOCIATION for use by Centre of Molecular Biology and Medicine		
		200
WATSON, Ms J for use in Aboriginal Research Centre		50
WEHNER B AND V for use in Monash University Library		10
WERE AND SON CHARITABLE FUND, J B for use in Krongold Centre for Exceptional Children		1 000
WESTERN MINING CORPORATION LIMITED		
to support teaching at all levels within the department, with an emphasis on improving the quality of tuition and/or providing assistance at the final year level, Professor G Lister (Earth Sciences)	3 000	
1986 WMC Prizes:		
• for the Third Year student showing the greatest proficiency in Process Operations and Design (Chemical Engineering)	150	
• for the Fourth Year student showing the greatest proficiency in subjects concerned with mineral processing and extractive metallurgy (Chemical Engineering)	150	3 300
WESTPAC BANKING CORPORATION		
extension of Monash/Westpac scholarship held by Mr S Lam (Mechanical Engineering)	1 250	
towards purchase of works of art (Monash Art Collection)	20 000	21 250
WHITE BEQUEST, JOE allocation from income of the Bequest (Library Fund)		
		1 500
WHYTE, PROFESSOR J P for use in Graduate School of Librarianship		400
WILSON ELECTRIC TRANSFORMER CO PTY LIMITED		
1986 Wilson Electric Transformer Prize for Electrical Engineering	300	
Jack Wilson Prize for Electrical Engineering	300	600
WILSON WALTON INTERNATIONAL PTY LTD for use in Department of Materials Engineering		
		150

WILSON, DR I R to support the chaplaincy work of Rev. P Huggins (Religious Centre)		300	
WILSON, M E AND FINEBERG, H V towards cost of producing ILIX magazine (Microbiology)		14	
WINDERMERE FOUNDATION LIMITED for use in the Centre for Early Human Development		25 000	
WORLD HEALTH ORGANIZATION (WHO)			
to cover additional laboratory expenses of Dr E Castaneda Herrera, Professor D de Kretser (Anatomy)	2 317		
financial support from the who's Special Program of Research, Development and Research Training in Human Reproduction, for the project: Simplified management of the infertile couple, Professor D de Kretser (Anatomy)	2 819		
for the projects:			
• Expression of dengue virus type 2 genes in prokaryotic cells, Dr P J Wright (Microbiology)			
1985/86		29 618	
1986/87		65 112	
• Medical research in leptospirosis, Professor S Faine (Microbiology)	4 676	104 542	
ZAMPATTI, Ms C part of appearance fee, Overseas Telecommunications Commission Australia, press advertisements; for research (Centre for Early Human Development)			1 000

### Commonwealth Government

ABORIGINAL AFFAIRS, DEPARTMENT OF			
final payment for running costs Aboriginal Research Centre	50 700		
national wage award — Mrs J Page (Monash Orientation Scheme for Aborigines)		160	
payments 1986/87 grant		13 960	
payments 1987/88 grant		13 760	
(Monash Orientation Scheme for Aborigines)			78 580
AGRICULTURE, DEPARTMENT OF PLANT RESEARCH INSTITUTE			
for the project: Research into biology and control of fungal diseases of flowers and vegetables, postgraduate scholarship Ms K Padmanabhan; Dr G F Cross (Microbiology)			9 000
AUSTRALIAN INSTITUTE OF NUCLEAR SCIENCE AND ENGINEERING			
towards travel expenses to Lucas Heights, Dr G B Deacon (Chemistry)		300	
payment of studentship grant for Mr D J Cookson (Physics)	8 100		8 400
AUSTRALIAN NATIONAL PARKS AND WILDLIFE SERVICE			
under phase two of consultancy agreement, for the project: Investigation of the role of terrestrial crabs in the dynamics of Christmas Island rainforest, Dr D J O'Dowd and Dr P S Lake (Zoology)		7 000	
under consultancy agreement program 1986/87 for the project: Research into chlamydia in natural populations of the koala in Victoria, Phase II, Associate Professor A K Lee, Mr R W Martin and Dr K Handasyde (Zoology)		30 000	
ANPWS research and surveys consultancy program 1986/87, project: Reproductive output and recruitment of Norfolk Island long-billed white-eye and scarlet robin, Professor J M Cullen (Zoology)		6 000	
research and surveys consultancy program 1986/87 for the project: Study of the diet of the little penguin in waters off the Victorian coast, phase I, Dr J M Cullen (Zoology)	13 000		56 000
AUSTRALIAN ROAD RESEARCH BOARD			
for use in Careers and Appointments Service		100	
reimbursement of expenses to 30.6.87 for the project: Design perception — reaction time for Australian roads, Associate Professor T J Triggs (Psychology)		3 374	
first half payment for the project: Parking feasibility after study, Dr W Young, (Civil Engineering)	1 000		4 474

AUSTRALIAN TELECOMMUNICATIONS AND ELECTRONICS		
RESEARCH BOARD for the projects:		
• Viscosity of heavy metal glasses and their influence on fibre drawing characteristics, Dr T Sridhar (Chemical Engineering)	7 000	
• Image processing for robotics application using stereoscopic, moving camera and zoom lens techniques, Associate Professor W A Brown and Dr K C Ng (Electrical Engineering)	2 500	9 500
AUSTRALIAN WOOL CORPORATION		
balance of supervisor's fee for 1986/87 (Microbiology)	400	
supplementary increase for the project: Molecular biology of fimbriae from bacteroides nodosus, Dr J I Rood (Microbiology)	150	
second half-yearly payment of 1986/87 awards	89 301	
first half-yearly payment of 1987/88 awards	120 175	
first-half 1987/88 grant for supervisor's project, postgraduate student Mr D Harris; Dr K McLaren (Economics)	800	
for travel to USA, Dr C C Berndt (Materials Engineering)	1 000	
for the project: Investigation of the physiological basis of electro-immobilisation of sheep; additional funds to cover academic back pay Mr R D Lyn; Professor G D Thorburn and Professor D G Lampard (Electrical Engineering)	1 050	
for the project: Utility of detonation gun coatings for shear components, Associate Professor R McPherson and Dr C C Berndt (Materials Engineering)	34 400	
supplementary grant for the project: Use of recombinant DNA technology to produce a multivalent footrot vaccine, Dr J I Rood (Microbiology)	437 247 713	
COMMONWEALTH SCHOOLS COMMISSION		
for the 1987/88 project:		
Aboriginal languages feasibility study, Ms E D Fesl (Aboriginal Research Centre)	40 000	
via Victorian Ministry of Education staffing subsidy (Krongold Centre for Exceptional Children)	53 325	93 325
COMMONWEALTH SERUM LABORATORIES COMMISSION		
for the project: Development of a clostridium perfringens cloning system, Dr J Rood (Microbiology)	25 963	
CSL/Monash collaborative research venture, Professor M Hearn (Biochemistry)	41 341	
for the projects: Synthesis of certain bismuth compounds, Dr G D Deacon (Chemistry)	4 500	
Collaborative work on the use of synthetic molecular surfaces to stimulate an immune response, Dr P Perlmutter (Chemistry)	20 000	91 804
COMMONWEALTH TERTIARY EDUCATION COMMISSION		
1987 grant for School Links Project	25 000	
for the project: The writing abilities of first year history undergraduates 1974/ 1984 — a comparison, Mr G B V Taylor; Dr T Hore (Higher Education Advisory and Research Unit)	6 000	
final payment for higher degree study in the faculty of education, Professor P J Fensham (Education)	7 311	38 311
COMMUNITY SERVICES AND HEALTH, DEPARTMENT OF		
NHMRC second half-yearly payment 1986 research project: Subtypes of schizophrenia and their implications for rehabilitation, Professor B S Singh, Dr I H Minas and Dr B Tress (Psychological Medicine)	17 853	
NHMRC postgraduate research scholarship 1987 establishment allowance for the project: Ultra-structural study of hormone-binding sites in the female genital tract, Dr J Kumar (Obstetrics and Gynaecology)	500	
Overseas Fellows' grant Dr N W Boyce (Medicine, Prince Henry's Hospital)	31 278	
first payment 1987/88 for the project: Expanded public health program — in connection with degree of Master of Public Health, Professor J J McNeil (Social and Preventive Medicine)	105 000	154 631



CONSERVATION, FORESTS AND LANDS, DEPARTMENT OF		
final payment for the project: Catchment hydrology research, Dr R G Mein and Professor E M Laurenson (Civil Engineering)	3 100	
third instalment under consultancy agreement for the project: Research into chlamydia in natural populations of the Koala in Victoria — Phase II, Associate Professor A K Lee (Zoology)	9 000	
for project: Malleefowl research at Wyperfeld National Park, Professor J M Cullen (Zoology)	12 000	24 100
CSIRO INSTITUTE OF PHYSICAL SCIENCES		
for the project: Fast binary image analysis based 3D robot vision, Professor R A Jarvis (Electrical Engineering)	26 000	
stipend for research scholar, Mr P J Stuckey (Computer Science)	7 000	
interest on investment of funds 1985/86 for the project: Trace element and isotope geochemistry of similar devonian acid volcanic rocks of Eastern Victoria, Dr I A Nicholls, Dr R A Cas and Dr D J Whitford (Earth Sciences)	50	
first half-yearly payment of 1987/88 grant for the project: Improving metastable reliability of digital systems, Mr L Kleeman (Electrical Engineering)	2 000	
Division of Chemical and Wood Technology towards conference expenses of Dr J W May, Rome, (Microbiology)	1 000	
Division of Energy Technology experimental research — phase 1 — of ergonomic performance of advisory speed sign formats, as per agreed specification, Associate Professor T J Triggs (Psychology)	4 970	41 020
DEFENCE, DEPARTMENT OF for the project: Curing of polysulfide sealants, Professor B O West (Chemistry)		30 500
EDUCATION, DEPARTMENT OF		
Committee to review Australian studies in Tertiary Education second quarter, project: Law, Aboriginal and Ethnic Communities, Professor R Baxt (Law)	31 212	
first half payment for the project: Heritage handbook and fieldwork skills, Professor G Davison (History)	19 225	
balance of 1986/87 grant (Monash Orientation Scheme for Aborigines)	69 993	
air fares and allowances, reviewers (Monash Orientation Scheme for Aborigines)	4 140	
final payment 1986/7 grant for the project: The holdings of Australian creative literature published between 1980-85 in the libraries of tertiary education institutions, Professor J P Whyte (Graduate School of Librarianship)	2 852	
final half of payment for the project: To identify the principal planning issues in 'Australianising' the humanities curriculum, Professor J Hay (Arts)	5 000	
for the project: International comparisons of education: Sweden monograph, Dr L H T West (Higher Education Advisory and Research Unit)	1 947	
reimbursement of estimated expenses for quarter ending 30.9.87, 1987/88 grant (Monash Orientation Scheme for Aborigines)	21 218	
supplementary grant to cover cost of production of extra reports, for the project: Tertiary students' reasons for discontinuing their studies — TAFE students, Dr T Hore and Dr L West (Higher Education Advisory and Research Unit)	1 393	
Committee to review Australian Studies in tertiary education: To identify principal planning issues in Australianising the humanities curriculum, Professor J Hay (Arts)	5 000	
Employment, Education and Training, supplementary grant to cover cost increases for the project: Tertiary students' reasons for discontinuing their studies Dr T Hore and Dr L H T West (Higher Education Advisory and Research Unit)		369 162 349

ENVIRONMENT AND PLANNING, DEPARTMENT OF GOVERNMENT OF SOUTH AUSTRALIA for the project: Study of Piccaninny Ponds, Dr N Hallam (Botany)	500	
FOREIGN AFFAIRS, CANBERRA DEPARTMENT OF second half-year payment for visit of Mr E N Gordeev, official exchange lecturer from Leningrad State University, under Australia/ USSR Academic Exchange Agreement (Slavic Languages)	6 901	
Australia-China Council living allowance Mr Chen Jiagang (Administrative Studies)	7 616	
Australian International Development Assistance Bureau funding under Sponsored Overseas Students' Postgraduate Research Funding Scheme. Silica Gel Research, Mr D Klorbortu; Mr C W Ambrose (Mechanical Engineering)	1 600	16 117
HEALTH, CANBERRA, DEPARTMENT OF first half-yearly payment of post graduate research scholarship 1987, Dr S M Jane (Medicine, Alfred Hospital)	8 678	
reimbursement travel expenses Dr J. Kumar, visiting postgraduate research scholar (Obstetrics and Gynaecology)	877	
NHMRC first half yearly payment of 1987 bio-medical scholarship, for the project: Regulation of lung liquid volume in foetal sheep, Ms K A Dickson (Physiology)	4 663	
for the project: Expanded public health program — in connection with degree of Master of Public Health, Professor J J McNeil, (Social and Preventive Medicine)	100 000	
first half-yearly payment for the project: Glioma case-control study, Dr M Salzberg (Social and Preventive Medicine)	22 060	
first half-yearly payment of 1987 superannuation contribution: (Physiology)	16 464	
(Genetics)	1 304	
(Biochemistry)	1 554	
(Centre for Early Human Development)	7 545	
supplementary grant for the project: Repetition injury in keyboard workers, Clinical Associate Professor G A Ryan (Social and Preventive Medicine)	9 921	
NHMRC C J Martin Fellowship, Dr R A Strugnell (Microbiology)	34 058	
Commonwealth Aids Research Grants Scheme 1987 grant for the project: Prognostic indicators for the development of AIDS or related indicators in haemophiliacs, Dr M A Barnett (Pathology and Immunology)	30 000	237 124
HUMAN RIGHTS COMMISSION for the project: Effects of the school system on students from non-English speaking backgrounds, Dr M Bullivant (Education)	2 793	
INDUSTRY, TECHNOLOGY AND RESOURCES DEPARTMENT OF commissioning of a consultant (Chemistry)	52 500	
for the project: Mid-infrared optical fibres, Acting Professor P L Rossiter (Materials Engineering)	66 860	
ceramics demonstration project: Laser glazing of plasma sprayed ceramic coatings, Professor R McPherson (Materials Engineering)	15 000	
travel grant for Associate Professor R McPherson (Materials Engineering)	2 000	
to Teaching Company Scheme for Computer Science	9 000	145 360
MINERAL RESOURCES, BUREAU OF first half yearly payment for the project: The age and depositional history of Cainozoic paleodrainage systems in central WA, Professor M Williams (Dr I Sluiter, Visiting Fellow) (Geography)	19 203	
NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL outside studies leave March-June 1988, Dr T O Neild (Physiology)	7 250	

second half-yearly payment for the project: Glioma case-control study, Dr M Salzberg (Social and Preventive Medicine)	22 059	
clinical loading for the project: Mechanisms of glomerular fibrin deposition, Dr P Tipping; Dr S R Holdsworth (Medicine, Prince Henry's Hospital)	10 750	
via Prince Henry's Hospital joint NHMRC program grant, Dr D M de Kretser (Anatomy)	195 000	
balance 1987 program grant	70 000	
superannuation Dr D M Robertson (Anatomy)	4 743	309 802
OVERSEAS TELECOMMUNICATIONS COMMISSION (AUSTRALIA) — OTC contract 73588 final payment for the project: Studies into psychological factors and related aspects of videoconferencing, Dr T J Triggs (Psychology)		3 260
PRIMARY INDUSTRIES AND ENERGY, CANBERRA, DEPARTMENT OF (previously Resources and Energy)		
Australian Water Research Advisory Council AWRAC project 85/03: The effects of physical disturbance on stream communities of different substrata, Dr P S Lake (Zoology)	11 762	
National Energy Research Development and Demonstration NERDD reimbursement final part of grant for program project No. 807: Direct hydrogenation of brown coal in a continuous flow catalytic reactor, Professor W R Jackson, (Chemistry); and Dr T Sridhar (Chemical Engineering)	7 128	
reimbursement of expenditure for the projects:		
• 1043-Flow improvers for waxy crudes and middle distillates, Dr G A Holder (Chemical Engineering)	12 910	
• 919-Modelling of coal liquefaction reactions, Dr T Sridhar (Chemical Engineering)	13 201	
• 920-Dispersion of atmospheric and stability, Professor W H Melbourne (Mechanical Engineering)	37 456	119 318
RESOURCES AND ENERGY, DEPARTMENT OF		
National Energy Research Development and Demonstration Program (NERDDP)		
Direct hydrogenation of brown coal in a continuous flow catalytic reactor, Professor W R Jackson and Dr T Sridhar (Chemistry)	37 364	
Flow improvers for waxy crudes and middle distillates, Dr G A Holder (Chemical Engineering)	952	
Australian Water Research Advisory Council National Water Research Program for project 85/3: The effects of physical disturbance on stream communities of different substrata, Dr P S Lake (Zoology)	30 723	56 283
NERDDP project: Design of low energy indoor heated swimming pool, Professor T F Smith and Dr J L A Francey (Physics)	2 496	
for the project: Demonstration of heat recovery in industry drying processes, Mr C W Ambrose (Mechanical Engineering)	4 873	
expenses quarter ended 31.3.87 for project No. 919 — Modelling of coal liquefaction reactions, Dr T Sridhar (Chemical Engineering)	7 756	
Australian Water Research Advisory Council salary, maintenance and labour on-costs, research fellowship Dr A Duncan, for the project: Biological removal of phosphate from sewage, Dr R C Bayly (Microbiology)	21 916	
Australian Water Resource Advisory Committee salary and salary related on-costs, fellowship, Dr A Duncan (Microbiology)	18 916	162 452
SCIENCE AND TECHNOLOGY, DEPARTMENT OF ACT for project: The biodegradation of aromatic compounds in effluents from coal processing plants, Dr R C Bayly (Microbiology)		6 000
SCIENCE, CANBERRA DEPARTMENT OF		
National Research Fellowships Scheme first payment, period 3.11.86 to 31.12.87, for the project: Optimising the human-computer interface: human information		

processing considerations in interactive computer systems, Ms C Lees; Dr A Bodi (Administrative Studies)	30 165
for the project: Preparation and characterisation of halide glasses for tele- communication and remote sensing fibres, Mr P Mineely; Dr D R MacFarlane (Chemistry)	25 512
payment 30.4.87 to 31.12.87 for the project: The characterisation of gonadal peptides influencing Leydig cells, Dr M P Hedger; Professor D M de Kretser (Anatomy)	18 534
May to December 87 for the project: Studies on mineral pretreatment and the hydrometallurgical separation on metal valves, Associate Professor F Lawson (Chemical Engineering)	17 705
expense recoveries — patent, Dr R C Tobin (Physics)	9 415
for the projects: South oscillation, controlled droughts and floods, Dr P H Whetton (Geography)	25 993
Pregnancy and parturition in the marsupial macropus eugenii, Dr G Shaw; Professor R V Short (Anatomy)	27 129
Magnetic properties of inorganic and bioinorganic compounds, Dr E N Bakshi; Dr K S Murray (Chemistry)	27 271
Wave and current loads on offshore structures, Mr T Pollock; Associate Professor J Hinwood (Mechanical Engineering)	27 680
Theoretical investigation of flood flow in rivers, Dr B Perera; Dr R Keller (Civil Engineering)	27 495
Energy economy in drying brown coal and other materials, Mr Li Xi-Guang; Professor O E Potter (Chemical Engineering)	26 603
The mechanism of adhesion of plasma sprayed ceramic coatings to metallic materials, Dr G Heintze; Associate Professor R McPherson (Materials Engineering)	25 616
Visual processing of sentences, Dr L Stowe; Dr K I Forster (Psychology)	24 787
Evolution of the higher vertebrates with emphasis on Australian taxa: a palaeo- biochemical approach, Dr M Rowley; Dr P V Rich and Dr T H Rich (Earth Sciences)	30 036
July-December 87 for the project: Expression of natural and synthetic genes coding for hydrophobic proteins targeted to mitochondria, Dr D Nero; Dr P Nagley (Centre for Molecular Biology and Medicine)	27 199
Marine sciences and Technologies Grants Scheme for the project: Taxonomy and reproduction of selected genera of the dictyotales (phaeophyta) Dr J A Phillips and Dr M N Clayton (Botany)	31 016
final payment Queen Elizabeth II Fellow, Dr I C Cooke (Centre for Early Human Development) Development)	23 183
for visit to USSR, under the USSR/Australia science and technology agreement, Professor G S Lister (Earth Sciences)	5 000
scientific exchange trip to Japan for the projects: Development of computational algorithms and specialized instrumentation for robotic 3D vision systems, Dr R A Jarvis (Electrical Engineering)	3 900
travel grant Associate Professor S Marsuki and others (Biochemistry)	14 500
Antarctic Division for the projects: Distribution and dynamics of vegetation in relation to natural disturbance factors, Heard and McDonald Islands, Dr J A Peterson (Geography)	298
Biology of antarctic and sub- antarctic brown algae, Dr N D Hallam and Dr M N Clayton (Botany)	9 282
Antarctic Division, Hobart Department ASAC grants scheme for the project: Biology of antarctic and sub- antarctic brown algae, Dr N D Hallam and Dr M N Clayton (Botany)	13 684 472 003
TELECOM AUSTRALIA	
1986 Telecom Prize	250
Research Laboratories for completion of Stage 4: Investigation and development of a fluoride glass system for MID-IR optical fibres, Dr D MacFarlane (Chemistry)	26 000



research and development investigations into stress relaxation of thermoshrinkable polyethylene sleeves used for jointing moisture barrier cable, Dr Z H Stachurski (Materials Engineering)	14 500	
Contract No. 64587: Research and development studies into the effects of bismuth impurity levels in lead for use in large stationary lead-acid storage batteries, Dr M S J Gani (Materials Engineering)	7 500	48 250
WORKSAFE AUSTRALIA National Occupational Health and Safety Commission July to December 1987 for the projects:		
• Brain tumour case control study, relation to organic solvents and electromagnetic field exposure, Dr G A Ryan (Social and Preventive Medicine)	10 000	
• The role of primary afferent nerve pathway in repetitive strain injury, Dr R D Helme and Dr R Iansek (Medicine, Prince Henry's Hospital)	58 507	
• For support of a part time senior lecturer in occupational health, for the Master of Public Health course, Professor J O'Neil (Social and Preventive Medicine)	12 190	80 697
<b>State Government</b>		
COAL CORPORATION OF VICTORIA		
for the projects: The structure and reactivity of Victorian brown coal, Professor W R Jackson (Chemistry)	20 802	
• Steam drying of brown coal, salary and related expenditure	15 000	
• plant, equipment, materials	15 000	
Professor O E Potter (Chemical Engineering)		50 802
EDUCATION, MINISTRY OF		
balance of 1986 grant from Commonwealth Schools Commission — recurrent grant (Krongold Centre for Exceptional Children)	3 109	
consultancy grant for the project: Scenarios for multicultural Australia, Associate Professor M Clyne (Centre for Migrant and Intercultural Studies)	1 500	
for the project: Summary of research findings in science program, Dr J Northfield (Education)	7 500	
to fund speech therapist 1987, Dr N Nettleton (Education)	5 100	17 209
HEALTH DEPARTMENT, VICTORIA, THE		
salary reimbursement Professor B S Singh (Psychological Medicine)	21 436	
for the project: Drug education survey in Victorian Secondary Schools, Dr J R Northfield (Education)	15 000	
reimbursement of expenses to 30.9.87, Professor B S Singh (Chair of Psychological Medicine)	21 033	57 469
MANAGEMENT AND BUDGET, DEPARTMENT OF		
Special assistance to students		
• additional 1986	114 500	
• 1987	47 000	161 500
MELBOURNE AND METROPOLITAN BOARD OF WORKS for second year of project: Sewer infiltration model and control strategy for management of flow in the Melbourne sewerage system, Dr K P Dabke (Electrical Engineering) and Associate Professor R G Mein (Civil Engineering)		11 650
METEOROLOGY, BUREAU OF		
aeroplane hire	1 200	
geophysical fluid dynamics laboratory, Dr R K Smith (Mathematics)	2 000	
for studies related to extended range forecasting — research scholarship Mr P Mullermeister; Dr D Karoly (Mathematics)	5 000	8 200
PREMIER AND CABINET, DEPARTMENT OF		
MacFarlane Burnett Biomedical Scholarship scholarship payment	9 576	
travel grant for the project: Modulation of circular and longitudinal myometrial activity in the sheep, Ms K M Burgess; Dr G Jenkin (Physiology)	290	
MacFarlane Burnett Biomedical Research Scholarship, Mr C Adams (Physiology)	2 708	12 574

TRANSPORT ACCIDENT COMMISSION TRANSPORT INJURY PROTECTION for the project: Injury profiles of pedal cyclist casualties wearing and not wearing helmets, Clinical Associate Professor F T McDermott (Surgery, Alfred Hospital)	17 500
VICTORIAN INSTITUTE OF MARINE SCIENCES for the project: Reproductive biology of Sargassum, Mr D May; Dr M N Clayton (Botany)	950
VICTORIAN SCHOOLS COMMISSION, THE for the project: Impact study of professional development in computer education, Dr L C Ingvarson (Education)	10 000
V LINE for the project: Investigation of railway bridge design, Associate Professor P Grundy (Civil Engineering)	15 000

### Commonwealth Government Research Grants

The following research grants, recommended by the Australian Research Grants Scheme, were approved by the Commonwealth Government.

#### *Anthropology and Sociology*

PROFESSOR J S KAHN Social change and the role of the indigenous middle class: a comparative regional study of Negeri Sembilan (Malaysia) and Sumatra Barat (Indonesia) — \$14 000

#### *Centre of Southeast Asian Studies*

ASSOCIATE PROFESSOR D P CHANDLER The transformation of Cambodia politics and society since 1945 — \$4 500

#### *English*

DR P J AYRES The authorised biography of Malcolm Fraser — \$2 500  
MISS B M NIALI Biography of Martin Boyd — \$8 000

#### *Geography*

DR L M HEAD Prehistoric environments and human exploitation of Lake Condah, southwestern Victoria: a pilot study — \$2 800  
DR A P KERSHAW The vegetation and environmental history of northeastern Australia — \$14 000  
DR A P KERSHAW AND DR J A PETERSON Quaternary history of the western plains Victoria — \$10 000  
DR K O'CONNOR The location of recent economic activity within Australia — \$8 000  
DR N J TAPPER AND DR D L DUNKERLEY Modelling effects of environmental modifications on river water temperatures: a pilot project — \$4 000  
PROFESSOR M A J WILLIAMS AND DR D A ADAMSON Late cainozoic environments: 5 million years ago to present — \$71 837

#### *Graduate School of Librarianship*

PROFESSOR J P WHYTE The collections of Australian creative writing in Australian libraries — \$22 500

#### *History*

DR I F S COPLAND An exploration of the nature and extent of popular support for the Pakistan movement in the princely state of Kashmir between 1930 and 1948 — \$3 500  
PROFESSOR G J DAVISON A history of urban Australia to 1900 — \$11 325

#### *Linguistics*

ASSOCIATE PROFESSOR J T PLATT The indigenisation of English with particular reference to two multilingual nations: Singapore and Fiji — \$14 000

#### *Music*

DR M J KARTOMI Music cultures of the Batak, Gayo and Alas peoples, Sumatra — \$22 500

#### ARTS



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*Slavic Languages*

PROFESSOR G J MARVAN Theoretical framework of slavic inflection — \$8 000

*Visual Arts*

Ms M A HOLLOWAY A history of Australian art 1945-1985 — \$7 200

ECONOMICS AND POLITICS

*Econometrics and Operations Research*

DR M L KING AND DR M A EVANS Specification error in econometric models — \$17 000

*Economic History*

DR A E DINGLE Biography of Anne Currie — \$6 000

EDUCATION

*Education*

DR G C LEDER The relationship between teachers' wait time to questions, subject area, sex and achievement level of the students — \$15 000

PROFESSOR R T WHITE, DR R F GUNSTONE AND PROFESSOR P J FENSHAM Teaching and learning science in schools — \$36 000

PROFESSOR M E POOLE Improving the education, work and life choices of young girls and women — \$24 000

ENGINEERING

*Chemical Engineering*

DR J R G ANDREWS, DR C TIU AND DR P H T UHLHERR Prediction of the selectivity of particle separations in suspensions containing significant quantities of very fine particles — \$8 000

DR R J DRY High velocity gas-solid fluidisation: A fundamental study of gas-solids contact efficiency — \$8 000

DR G A HOLDER Kinetic studies of the generation of hydrogen sulphide by microbial slimes in contact with sulphate-containing water and wastewater — \$16 000

ASSOCIATE PROFESSOR F LAWSON Studies in extractive metallurgy — \$115 000

DR J F MATHEWS Catalytic removal of oxygen from Victorian brown coal — \$13 000

PROFESSOR O E POTTER Chemical engineering of liquid-phase organic oxidations — \$17 000

PROFESSOR O E POTTER Fluidised bed reactors with internals — \$31 000

DR T SRIDHAR Studies on extensional flow of liquids — \$15 000

*Civil Engineering*

DR P LE P DARVALL Softening hinges in concrete beams and frames — \$33 000

ASSOCIATE PROFESSOR P GRUNDY Effect of moving loads on deck structures — \$11 600

PROFESSOR N W MURRAY Development and experimental verification of a method for designing crashworthy structures — \$22 000

*Electrical Engineering*

DR J A BENNETT AND DR P L DYSON Ionospheric ray tracing programs for real time tracing and multi-mode and spectral broadening calculations — \$8 000

PROFESSOR R A JARVIS Intelligent sensory-based robotics — \$36 000

DR D L MORGAN Comparative studies of fast tension transients in single vertebrate muscle fibres — \$12 703

*Materials Engineering*

ASSOCIATE PROFESSOR B W CHERRY The initiation of stress corrosion cracking by low frequency cyclic straining — \$14 132

DR G H EDWARD Deformation mechanism mapping of polymers — \$16 000

DR J R GRIFFITHS AND DR Z H STACHURSKI Analysis of isothermal and nonisothermal transformation kinetics — \$10 870

ASSOCIATE PROFESSOR R MCPHERSON Microstructural development in alumina silica-zirconia ceramics prepared from glasses — \$22 500  
 DR B C MUDDLE The structure and properties of rapidly quenched crystalline alloys — \$22 000  
 ASSOCIATE PROFESSOR B A PARKER The production structure and properties of strip cast alloys — \$12 000  
 ASSOCIATE PROFESSOR B A PARKER, DR B C MUDDLE, ASSOCIATE PROFESSOR R MCPHERSON AND PROFESSOR I J POLMEAR Analytical electron microscopy of materials — \$64 900  
 PROFESSOR I J POLMEAR Development of aluminium alloys with improved performance at elevated temperatures — \$31 863  
 DR P F THOMSON Prediction of the profile of hot-rolled steel slab after edge-rolling — \$12 000

#### *Mechanical Engineering*

DR Y C LAM Effects of residual stress on fatigue crack growth — \$13 028  
 PROFESSOR W H MELBOURNE Aerodynamic instabilities, loading and response of bluff bodies in a turbulent flow — \$112 000

#### *Law*

PROFESSOR R BAXT Corporate governance — An evaluation of the role of directors of the modern Australian company and the legal and commercial constraints on participation in management — \$20 000

#### *LAW*

#### *Anatomy and Physiology*

PROFESSOR R V SHORT The control of reproduction in female marsupials — \$66 514  
 DR S MARZUKI AND PROFESSOR A W LINNANE Structure and function of mitochondrial membranes — \$30 000  
 ASSOCIATE PROFESSOR B N PRESTON AND DR W D COMPER Diffusive and convective transport in biological and model multicomponent systems — \$29 000

#### *MEDICINE*

#### *Biochemistry*

PROFESSOR M T W HEARN Studies with novel microparticulate matrices for the high performance hydrophobic electrostatic and affinity chromatography of biomacromolecules — \$40 596  
 ASSOCIATE PROFESSOR H B LUKINS AND PROFESSOR A W LINNANE Biogenesis of mitochondria — \$14 500

#### *Centre for Molecular Biology and Medicine*

DR P NAGLEY Expression of natural and synthetic genes coding for hydrophobic proteins targeted to mitochondria — \$24 000  
 DR P NAGLEY Informational macromolecules in nucleocytoplasmic interactions — \$29 000

#### *Microbiology*

DR R C BAYLY AND DR R A SKURRAY Regulation of the microbial degradation of xylenols and cresols — \$4 000  
 DR J I ROOD Cloning and genetic analysis in *Clostridium perfringens* — \$12 000  
 DR R A SKURRAY Molecular analysis of the conjugative F plasmid — \$39 500

#### *Physiology*

ASSOCIATE PROFESSOR R A WESTERMAN Small cutaneous nerve function — mechanisms of prickle and itch — \$19 000

#### *Dean of the faculty*

PROFESSOR W R A MUNTZ A behavioural and optical study of visual resolution and sensitivity in cephalopods — \$11 966

#### *SCIENCE*



### Botany

DR M N CLAYTON Studies on the reproductive biology of brown algae — \$26 526

### Chemistry

DR R F C BROWN AND DR F W EASTWOOD Mechanism of aryne formation from aromatic anhydrides — \$24 891

DR R F C BROWN AND DR F W EASTWOOD Pyrolytic generation of transient organic molecules — \$12 000

PROFESSOR R D BROWN Weak interstellar masers — \$10 000

PROFESSOR R D BROWN AND DR P D GODFREY Molecules in space — phase 3 — \$87 479

DR D J COLLINS Studies of enolic ortho esters — \$26 670

DR G B DEACON Lanthanoid and actinoid chemistry — \$18 000

DR G B DEACON Syntheses of organometallics and organoamidometal compounds by decarboxylation reactions — \$13 000

ASSOCIATE PROFESSOR R S DICKSON Mixed metal clusters — their formation structures and reactivity — \$13 000

DR K G DYALL Relativistic atomic electronic structure and rearrangement processes — \$2 500

DR B M GATEHOUSE Crystal chemistry of the solid state — \$12 000

DR P D GODFREY AND DR R J S MORRISON Molecular structures in electronically excited states — \$5 000

PROFESSOR W R JACKSON AND DR P PERLMUTTER New synthetic methods involving organometallic catalysis — \$20 000

PROFESSOR R L MARTIN New inorganic materials — \$30 000

DR R J S MORRISON Laser multiphoton ionisation spectroscopy of beam cooled free radicals — \$23 953

DR K S MURRAY Magnetic properties of inorganic and bioinorganic compounds — \$26 836

DR P PERLMUTTER New synthetic methods based on simulated antigen surfaces attached to synthetic porphyrin templates — \$30 266

ASSOCIATE PROFESSOR I D RAE Thermal degradation of deuterium-labelled vinyl polymers — \$12 000

PROFESSOR B O WEST Studies of oxo and imido bridged heterobimetallic complexes — \$20 000

### Computer Science

PROFESSOR C S WALLACE Capability-based multiprocessor — \$18 000

### Earth Science

DR M S BLOOM Experimental study of mineral-solution equilibria: molybdenum complexing in hydrothermal solutions — \$15 000

DR R A F CAS Mineralised submarine felsic volcanic successions: eruptive processes, products and environments — \$59 266

DR J P CULL Geophysical constraints and rheological profiles for crustal evolution in Australia — \$12 132

DR D R GRAY Tectonic style and significance of the ordovician system eastern Victoria — \$30 463

DR R T GREGORY Stable isotope studies of archaic hydrothermal systems, Pilbara Block, Western Australia — \$24 000

DR G S LISTER The physics of large-scale flow in hot polycrystalline masses — \$51 465

DR I A NICHOLLS Petrology/geochemistry of active calcalkaline volcanoes, Java — \$5 000

DR P V RICH AND DR T H RICH Evolution of the higher vertebrates with emphasis on Australian taxa — \$16 000

MR V J WALL Feldspar-quartz-melt relations and their implications for crustal anatexis and felsic magma evolution — \$18 229

### Genetics

PROFESSOR B W HOLLOWAY, DR A F MORGAN AND ASSOCIATE PROFESSOR V KRISHNAPILLAI Genome organisation in pseudomonas — \$52,000

ASSOCIATE PROFESSOR V KRISHNAPILLAI Genetic analysis of plasmid promiscuity — \$13 500

DR S W McKECHNIE Genetic variation in alcohol tolerance and alcohol dehydrogenase in a winery population of drosophila melanogaster — \$26 650



DR D R SMYTH AND MS A L LAVELLE A DNA sequence element dispersed through the genomes of *Lilium* species — \$11 000

#### *Mathematics*

DR C J ASH Recursive model theory — \$9 000

DR D J KAROLY Southern hemisphere circulation features associated with equatorial sea surface temperature anomalies — \$10 500

DR J J MONAGHAN Hypersonic flow — \$6 000

PROFESSOR B R MORTON Fluid flow past surface-mounted obstacles — \$10 000

DR R K SMITH The north Australian cloud line — \$27 000

DR R K SMITH AND DR M A PAGE Southerly buster cold fronts — \$15 850

#### *Mathematics/Computer Science*

PROFESSOR J N CROSSLEY Recursive content of algebra and analysis — \$6 000

#### *Physics*

ASSOCIATE PROFESSOR J D CASHION A study of the structure and magnetic properties of solids using the Mossbauer effect — \$40,699

DR T R FINLAYSON AND DR J R GRIFFITHS The influence of residual stresses on the physical and mechanical properties of alloys — \$22 000

DR R J FLEMING Electrical properties of quartz-implications for defect chemistry — \$20 131

DR T J HICKS Magnetism in atomically random systems — \$13 000

DR T J HICKS AND DR J R DAVIS Polarisation analysis of diffuse neutron scattering — \$40 661

DR J R PILBROW Electron spin resonance of transition ions in biological and model systems — \$40 280

PROFESSOR T F SMITH, ASSOCIATE PROFESSOR J D CASHION, DR T R FINLAYSON AND DR F NINIO Vibrational modes and lattice stability in solids — \$41 767

DR G J TROUP AND MR R G TURNER Application laser speckle photography to mineral processing investigations — \$15 000

DR K THOMPSON AND DR D W COATES Photoelectric photometry and spectroscopy of known and candidate RS CVN stars — \$3 000

#### *Psychology*

DR D C BRADLEY Phonological structures and lexical processes — \$19 500

DR J L BRADSHAW AND DR N C NETTLETON Hemispace and intermodality integration and conflict in decision making and learning — \$22 000

PROFESSOR R H DAY Perceptual processes involved in visual illusions — \$21 026

DR K I FORSTER Visual processing of sentences — \$23 000

MR M B MACMILLAN The phineas gage case and the localisation debate — \$4 400

DR D M THOMSON Recall and recognition processes — \$15 000

#### *Zoology*

DR J BALDWIN Studies on the evolution of multilocus isoenzymes of vertebrates utilising Australian lampreys — \$6 000

DR P S LAKE The effects of disturbance on stream macroinvertebrates — \$11 070

#### *Zoology and Botany*

DR D J O'DOWD The role of domatia on Australian rainforest plants: plant-mite mutualism? — \$14 503

### **National Health and Medical Research Council**

The following research grants recommended by the National Health and Medical Research Council were approved by the Commonwealth Government.

#### *Anatomy*

DR D K BOWDEN Anaemia in Vanuatu and the relationship between Thalassaemia and Malaria — \$44 459

DR J B KERR Local hormonal control of testicular function — \$26 171

DR S C PHILLIPS Neuropathological basis for alcohol addictive behaviour — \$15 983



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DR P D TEMPLE-SMITH AND DR H TEICHTAHL Structural and functional studies of cilia in long term cell cultures — \$27 764

*Biochemistry*

DR L AUSTIN, DR H ARTHUR AND DR L J ROBERTS Control of oxygen free-radical damage in muscular dystrophy — \$35 470

DR L AUSTIN, DR J G WATTERSON AND PROFESSOR M T HEARN Molecular control mechanisms in peripheral nerve regeneration — \$57 198

DR C J HANDLEY AND DR H C ROBINSON Role of growth factors in the repair of articular cartilage — \$32 882

DR C J HANDLEY, DR H C ROBINSON AND DR S E D'SOUZA Molecular structure and organisation of articular cartilage proteoglycan — \$29 422

PROFESSOR M T HEARN Biochemical and biological studies with fibroblast growth factors — \$69 284; Kinetic studies on unfolding/refolding pathways of pituitary protein hormones — \$26 842; Structural, biological and immunological studies with glycoprotein hormones — \$74 924

PROFESSOR D A LOWTHER AND DR M S BAKER Cellular protection against oxyradical damage during ageing — \$28 594; Role of hydrogen peroxide in models of arthritis — \$27 353

PROFESSOR D A LOWTHER, DR J S BARTHOLOMEW AND DR A SRIRATANA Entry of pmn elastase into cartilage and decreased chondrocyte metabolism — \$26 523

PROFESSOR D A LOWTHER AND DR C J HANDLEY Changes in metabolism of pregnant sheep and rabbit cervix pre and post partum — \$34 722

DR S MARZUKI, PROFESSOR F L MASTAGLIA AND DR W M CARROL Expression of human mitochondrial genome: Molecular pathology of human disorder — \$35 829

ASSOCIATE PROFESSOR B N PRESTON AND DR W D COMPER Experimental models of transcapillary exchange — \$19 633

*Centre for Early Human Development*

DR I KOLA AND DR A O TROUNSON Teratogen effects on preimplantation mouse embryos — \$30 098

MR P J LUTJEN AND DR A O TOUNSON Studies on the recognition and binding of human spermatozoa to zona pellucida — \$59 311

DR A O TROUNSON AND MR P J LUTJEN Characterisation and correction of cervical-factor infertility — \$29 374

DR A O TROUNSON AND DR L R MOHR Studies on mammalian egg and embryo cryopreservation — \$51 916

DR A O TROUNSON, DR A H SATHANANTHAN, DR A M WALKER AND DR P A ROGERS Application for an electron microscope for studies in reproduction — \$85 760

DR A O TROUNSON, DR P D TEMPLE-SMITH, DR M M MAHADEVAN AND MR G J SOUTHWICK A study of human sperm function in vitro in relation to infertility — \$41 563

DR A O TROUNSON, DR L WILTON AND DR I KOLA Embryonic biopsy for diagnosis of genetic and developmental defects — \$59 855

DR A M WALKER Cardiovascular development from birth in lambs after chronic stress in utero — \$87 116; High frequency ventilation in term and preterm lambs — \$38 524

*Centre for Human Bioethics*

PROFESSOR J M SWAN Bioethical issues in the use of foetal tissue in vitro human gametes and embryos — \$91 343

*Centre for Molecular Biology and Medicine*

DR M W BEILHARZ, DR B F CHEETHAM AND PROFESSOR A W LINNANE Interferon action: the use of murine interferon- $\alpha$  analogs in vitro and in vivo — \$62 521

PROFESSOR A W LINNANE AND DR P J HERTZOG Characterisation of acid-labile leukocyte interferon in AIDS — \$81 216

DR S MARZUKI, DR G L McMULLEN AND PROFESSOR A W LINNANE Antibodies with predetermined specificity to individual species of interferon — \$32 633

*Genetics*

PROFESSOR B W HOLLOWAY, DR A F MORGAN AND DR L V ASCHE Genetics of mucoid pseudomonas aeruginosa strains from cystic fibrosis patients — \$30 833

DR V KRISHNAPILLAI AND DR P J COLOE DNA probes for the identification of campylobacter jejuni — \$29 648

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### *Medicine*

- DR R D HELME Studies of neurogenic inflammation — \$48 613  
DR R D HELME AND DR G O LITTLEJOHN The effect of physical treatment modalities on nociceptor function in man — \$34 277  
DR S R HOLDSWORTH Mechanisms of glomerular fibrin deposition — \$41 500  
DR R IANSEK AND DR M K HORNE A study of the motor function of the basal ganglia-cortical loop — \$56 222  
DR B P McGRATH Vasoconstrictor mechanisms in congestive heart failure — \$22 577

### *Microbiology*

- DR J K DAVIES The genetics of phase and antigenic variation in neisseria gonorrhoeae — \$26 960  
DR I M DENHAM AND PROFESSOR S FAINE Antibodies to beta-lactamases during human gram-negative bacterial infection — \$24 522  
PROFESSOR S FAINE AND DR B ADLER Immunity and pathogenesis in leptospirosis — \$71 374  
DR R A SKURRAY Molecular and genetic analysis of antibiotic resistance in staphylococci — \$60 516  
DR E G WESTAWAY AND DR P J WRIGHT Cloning, sequencing and expression of flavivirus genes — \$59 803; Replication and immuno-chemistry of togaviruses — \$78 620  
DR P J WRIGHT AND DR E G WESTAWAY Molecular basis of the expression of the flavivirus genome — \$48 701

### *Obstetrics and Gynaecology*

- DR P A ROGERS, PROFESSOR W A WALTERS AND DR C R MURPHY In vivo and ultrastructural studies on implantation and uterine receptivity — \$36 668

### *Pathology and Immunology*

- DR R L BOYD AND PROFESSOR J W GODING Phenotypic and functional analysis of thymic stromal cell complexes — \$37 458  
DR P A GLEESON AND PROFESSOR J W GODING Structure and function of the oligosaccharide chains of transferrin receptor — \$30 002  
DR J McCLUSKEY AND PROFESSOR J W GODING Production, purification and analysis of secreted MHC class I antigens — \$42 487  
DR B H TOH The gastrin receptor and pernicious anaemia — \$25 682

### *Pharmacology*

- PROFESSOR A L A BOURA AND DR R G KING Converting enzyme block and cardiovascular responses to sympathetic stimuli — \$21 500  
DR J N O'NEIL, DR M E STORY, DR G M HANDBERG AND DR J D PAULL Adrenoceptors and uterine contractility: regulation by hormones, pregnancy and nerves — \$52 478

### *Physics*

- DR P P PHAKEY, PROFESSOR W A RACHINGER AND DR H J ORAMS In depth and surface remineralisation of tooth enamel — \$31 894

### *Physiology*

- DR L M AITKIN The representation of auditory space in the cerebral cortex — \$48 106  
DR R A BYWATER AND DR G S TAYLOR Non-cholinergic non-adrenergic neurotransmission in the intestine — \$25 461  
DR C L GIBBS AND DR I R WENDT Basal and active metabolism of smooth and cardiac muscle — \$72 211; Biochemical and energetic effects of volume and pressure overload hypertrophy — \$45 006  
PROFESSOR M E HOLMAN Innervation of smooth muscle — \$38 050  
PROFESSOR M E HOLMAN AND PROFESSOR G D THORBURN Control of uterine motility during pregnancy and parturition — \$42 819  
DR R J LANG AND PROFESSOR M E HOLMAN Voltage clamp analysis of muscarinic excitation in single smooth muscle cells — \$15 864  
DR A R LUFF Mutability of mammalian motor units — \$32 633  
DR T O NEILD Action of neuropeptide y on arterioles — \$48 976  
DR U PROSKE AND DR J E GREGORY Muscle receptors: afferent responses reflex action and central projections — \$71 203
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DR U PROSKE AND DR D L MORGAN Measurement of stiffness of intact tendon over a wide range of tensions — \$14 534  
 DR S M REES AND DR J A RAWSON Vulnerability of the developing brain in experimental growth retardation — \$43 929  
 PROFESSOR R V SHORT AND DR M B RENFREE Lactational control of reproduction — \$101 565

#### *Psychological Medicine*

PROFESSOR G C SMITH, DR D L COPOLOV AND DR G L WILLIS Interaction of cingulum, amines and endorphin during stress and opiate withdrawal — \$61 341  
 PROFESSOR B S SINGH, DR P D MCGORRY AND DR D L COPOLOV Longitudinal course and clinical features in the functional psychoses — \$26 439  
 PROFESSOR B S SINGH, DR I H MINAS AND DR B TRESS Subtypes of schizophrenia and their implications for rehabilitation — \$38 277

#### *Psychology*

DR W R WEBSTER Functional mapping of auditory and visual system with 2-deoxyglucose and glucose — \$32 007

#### *Surgery*

PROFESSOR V C MARSHALL, DR P JABLONSKI AND DR D F SCOTT A new solution for organ preservation — \$29 338  
 PROFESSOR P E O'BRIEN Role of the microcirculation in protection of the gastric mucosa — \$23 357

#### *Zoology*

DR J N NELSON AND DR D P CREWTER Neural development in the marsupial native cat — \$30 330

#### **Gifts in kind**

FROM DR JOSEPH BROWN, a portrait of Russell Drysdale by Peter Purves Smith, charcoal sketch (Monash Art Collection).  
 FROM GUY AND PHYLLIS BOYD, a painting by David Boyd entitled *La Grande Patronne*, oil on board 4'x3', from the series *The Private View*; a drawing by Wes Walters entitled *Nude Figure*, charcoal on paper 4'x4' (Monash Art Collection).  
 FROM DAVID BOYD, a sculpture by Guy Boyd entitled *Swimmer entering water*, polyester resin (Monash Art Collection).  
 FROM HEWLETT PACKARD AUSTRALIA LTD, two high performance Vectra personal computers, one Quietjet Plus printer and one Colorpro plotter (Australian Centre for Biomedical Simulation, Department of Physiology).  
 FROM DR DAVID ROSENTHAL, an outdoor sculpture by Clive Murray-White entitled *There ought to be a law against it* (to be located outside the north wall of the Monash Gallery and which will function as the first symbol in relation to it).

#### **Sources of grants and donations**

	\$000	%
Private donations and indirect Government research grants	7 089	52.2
Australian Research Grants Scheme	2 587	19.0
National Health and Medical Research Council	3 916	28.8
	<u>13 592</u>	<u>100.0</u>

In addition to the gifts and grants listed, there have been many gifts of books, journals, artifacts and other material, some very valuable, to the Library, departmental libraries, the Monash University Art Collection and to departmental museums.



## Appeal funds

The University conducts a number of appeals for specific purposes; sums contributed this year include:

Centre for Commercial Law and Applied Legal Research	90 850
Centre for Early Human Development (ivf Friends' gifts)	1 000
Centre for Human Bioethics	12 779
Elwyn Morey Memorial Fund	2 790
Library Fund	57 074
Monash Art Gallery including Russell Drysdale Memorial Fund	20 000
Robert Blackwood Hall — harpsichord	2 676
Staff Silver Jubilee Appeal for gifts to Art Collection	3 155
Total appeal funds	190 324

The 1987 annual accounts have been prepared to reflect, in part, the more co-ordinated approach to budgeting adopted for 1987 which was further refined in the 1988 budget. The changes presented in these accounts are briefly summarised for clearer understanding of the comparative data.

## FINANCE

### Operating fund

This fund represents the previous information reported on the recurrent grant, and in addition now includes the teaching hospitals grant, grants from the Monash University Foundation to supplement University operations, and other operating income (and expenditure).

### Non-operating fund

This fund represents the previous Commonwealth Government Building Projects Grant and in addition includes the University's capital building works funded from non-government sources, which was previously reported under General Auxiliary Activities.

A number of salient points from the audited accounts of the University for the year 1987 are set out for reference.

### Operating Fund

	\$000	%
<i>Income</i>		
Commonwealth Government grants	99 189.5	92.7
Commonwealth Government grants — teaching hospitals grant	375.0	0.4
State Government grant	835.0	0.8
Higher education administration charge	3 460.3	3.2
Overseas full fee paying students	343.9	0.3
Monash University Foundation grant	2 700.0	2.5
Other income	130.0	0.1
	<u>107 033.7</u>	<u>100.0</u>
<i>Expenditure</i>		
Academic activities	72 424.2	69.6
Academic services	10 171.6	9.8
Student services	2 368.0	2.3
General services	18 896.1	18.1
Public services	139.0	0.1
Other	120.3	0.1
	<u>104 119.2</u>	<u>100.0</u>
Result for the year	(surplus) 2 914.5	
<i>Less:</i>		
Transfer to general auxiliary activities	904.2	
Deficit brought forward 1 January 1987	822.2	
Accumulated surplus carried forward 31 December 1987	<u>1 188.1</u>	

### Comments

- The Commonwealth recurrent grant for 1987 reflects an increase of \$k1 991.5 or 2 percent over the previous year. This small growth is due, in part, to the intro-

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duction of the higher education administration charge, which has shifted some of the education cost from Government.

- The Commonwealth Government grant received in 1987 was expended on approved projects.
- State Government funding for State Youth Guarantee students increased from \$k408.0 in 1986 to \$k835.0 for 1987.
- The higher education administration charge of \$k3 460.2 represents the total sum collected from enrolling students in 1987.
- The introduction of enrolments on a full fee-paying basis for certain approved overseas students has generated additional operating funds.
- The Monash University Foundation grant represents a significant contribution to the University's operating budget for 1987, and demonstrates once again the importance of the foundation to the University.
- The accumulated surplus of \$k1 181.0 reflects a change in budget strategy which now permits the carry-forward of unspent operating budget allocations from one year to the next. This, in turn, facilitates financial management beyond the normal twelve months' budget period.

### **Non-operating Fund**

The inclusion of non-government funded capital works provides a more comprehensive report on expenditure on University projects.

The Common Fund investment manager reported a positive result on University investment earnings based on market values for the financial year ended 31 December 1987 following the share market fall in October 1987. The investment manager expressed confidence in the future of the Common Fund portfolio based on the high quality of the investments held in the portfolio.

### **Equipment grant**

The Commonwealth Government equipment grant for 1987 totalled \$k5 627.0. Of this \$k5 282.6 was expended as at 31 December 1987. The accumulated surplus of \$k700.8 was fully committed and will be expended early in 1988.

### **Special research grant**

The Commonwealth Government grant of \$k1 717.0 for 1987 for expenditure on special research projects was fully expended.

### **Other information**

#### *Accounts*

The audited accounts of the University for the year 1987 are appended to this report and provide further detail of the year's activities.

#### *Student fees*

Union fees and the higher education administration charge payable by students enrolled for the year 1987 were as follows:

- Higher education administration charge: \$250 per student. Income from these fees was \$k3 460.2 with an off-setting amount of \$k3 080.5 deducted from the Commonwealth recurrent grant.
- Union fees: students studying on campus — full-time \$252, part-time \$158 (less than 75 percent) and \$110 (less than 40 percent); students studying off campus in Victoria — \$53.

#### *General*

The University has introduced a number of new initiatives including the establishment of an academic development fund to promote excellence in teaching. It has also recognised the economic necessity to plan for longer term financial liabilities such as long service leave costs, and other contingencies.

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**Statement by Principal Accounting Officer**

ACCOUNTS FOR THE YEAR 1987

In my opinion, the *Statement of Balances, Statements of Income and Expenditure and Notes to and forming part of the accounts* of Monash University present fairly the operations of the University for the year ended 31 December 1987 and the state of affairs of the University at that date.

L Mohr  
Principal Accounting Officer  
20 October 1988

**Statement by Vice-Chancellor and Comptroller**

In our opinion, the *Statement of Balances, Statements of Income and Expenditure and Notes to and forming part of the accounts* of Monash University present fairly the operations of the University for the year ended 31 December 1987 and the state of affairs of the University at that date.

In addition we are not aware at the date of signing these statements of any circumstances which would render any particulars included in the statements to be misleading or inaccurate.

M I Logan  
Vice-Chancellor  
20 October 1988

P B Wade  
Comptroller  
20 October 1988

**Auditor-General's report**

The accompanying financial statements comprising statement of balances for all general purposes, summary statement of income and expenditure together with supporting statements numbered 3 to 12, statements relating to Donor Nominated Trust Funds, Superannuation and Pension Schemes and the Monash University Foundation and notes to and forming part of the financial statements of Monash University, prepared on a modified accrual basis of accounting as disclosed in notes 2, 3 and 6, have been audited as required by the *Monash University Act 1958* and in accordance with Australian Auditing Standards.

As stated in notes 8, 11 and 12 to the accounts, the investments of the University held in the Common Fund (\$1 722 832), the Superannuation and Pension Schemes (\$8 390 442) and the Monash University Foundation (\$21 236 148) are held in the name of fund managers. These investments and the related income of \$9 586 820, which includes both unrealised and realised gains and losses in respect of the investments of the Superannuation and Pension Schemes, have been included in the financial statements on the basis of statements furnished by the fund managers. Audit was unable independently to verify these investments and the related income.

In my opinion, subject to the effect, if any, on the financial statements of the matters referred to above, the financial statements present fairly the state of the affairs of Monash University as at 31 December 1987 and the results of its operations for the year ended on that date in accordance with the modified accrual basis of accounting.

C A Baragwanath  
Auditor-General  
15 December 1988

**Montech  
Auditor-General's report**

The accompanying financial statements comprising balance sheet, profit and loss account and notes to the financial statements of Montech Pty Ltd have been audited as required by the *Monash University Act 1958* and in accordance with Australian Auditing Standards.

In my opinion, the financial statements present fairly the state of the affairs of Montech Pty Ltd as at 31 December 1987 and the results of its operations for the year ended on that date in accordance with Australian Accounting Standards.

C A Baragwanath  
Auditor-General  
15 December 1988

**Financial statements for the year ended 31 December 1987**

Notes to and forming part of the accounts — 1987

Statement 1: Summary statement showing income and expenditure for all general purposes

Statement 2: Statement of balances for all general purposes

Statements 3–12: Statement of income and expenditure of general purpose funds

3 Operating fund

4 Non-operating fund

5 Equipment grant

6 Special research grant

7 Private and indirect Government research grants

8 General donations

9 Sports and Recreation and Union activities

10 Amenities development fund

11 General auxiliary activities

12 Fire insurance fund

Statement 13: Donor nominated trust funds

Statement 14: Superannuation and pension schemes

Statement 15: Monash University Foundation

Statement 16: Montech Pty Ltd

Statement 17: Wills Records Office Pty Ltd (*not subject to audit by Auditor General*)

**1 Statutory reporting requirements** The 1987 annual accounts of Monash University have been prepared pursuant to Section 41 of the Monash University Act 1958.

**2 Summary of accounting policies** The accounts have been prepared in accordance with the historical cost convention on a modified accrual basis.

Funds are received from Governmental and other sources for a variety of purposes. A supporting statement is attached to the Summary Statement recording income and expenditure in respect of each purpose. This identification of funds is maintained throughout the accounting system, thus providing the control necessary to ensure that each type of fund is used only for the purpose for which it is received. This presentation also facilitates the production of separate financial statements for the Government and other external bodies.

The 1987 accounts have been prepared in a new format to coincide with the restructured budgetary format initiated at the University in 1987 and applied in 1988. In the process of restructuring the budget some credit balances, which had accumulated in various funds at 31 December 1986, were applied partly to non-operating expenditure in 1987 and partly to reserves. These applications of funds are summarised in the transfers shown.

**3** The University does not operate primarily for the purpose of making a profit which can be expressed in monetary terms. For this reason, and in common with some Governmental forms of accounting, the conventional distinction between capital and recurrent expenditure is not maintained in the accounting system. Funds used for the purchase of consumable stores, equipment and the construction of buildings during each accounting period, are recorded as expenditure in that year's accounts, the only assets shown in the Statement of Balances being those which are in the form of, or which will or may be converted into, cash or its equivalent — *viz*, investments, debtors and stocks on hand.

**3.1** The University's main physical assets are buildings and, for insurance purposes, these were valued at

	1987 \$M	1986 \$M
Insurance value of buildings	\$310.8	\$277.8

**3.2 Stocks on hand (Statement 2)** Only materials which are purchased and controlled centrally have been reported within the Statement of Balances. Material purchased by the University for departmental use and held under the control of individual departments has been expended within the accounts at the time of pur-

chase. Stock-takes of centrally controlled stock were completed at 31 December 1987 and valuations at cost were as follows.

	1987 \$	1986 \$
Trading bookshop	717 089	647 741
Union and sports and recreation	190 932	174 319
Central building maintenance store	74 936	73 685
Halls of residence	38 185	34 506
Central stationery store	201 818	145 257
Other academic services	9 729	6 300
	<u>1 232 689</u>	<u>1 081 808</u>

### 3.3 Debtors — other (Statement 2)

	1987 \$	1986 \$
Trade debtors	1 465 516	1 387 630
Accrued income	1 067 665	1 092 474
Student loan debtors	502 402	425 852
Trading bookshop	27 846	32 393
IMC	750 000	—
Other	429 276	189 983
	<u>4 242 705</u>	<u>3 128 332</u>

### 3.4 Sundry creditors (Statement 2)

	1987 \$	1986 \$
Trade creditors	4 074 597	3 881 303
Accrued charges	1 269 016	1 145 725
Group tax	2 194 572	2 408 097
Trading bookshop	467 132	449 672
Monash University Foundation	593 000	—
Other	181 207	666 059
	<u>8 779 524</u>	<u>8 550 856</u>

4 Under Statement 11, *General Auxiliary Activities*, the University reports on its outside earnings and expenditure, which largely are generated by the faculties and major budgetary groups — refer notes 14.3 and 14.4.

In addition, separate commercial accounts are maintained for management purposes for income-producing activities within the University — eg, halls of residence, Union catering, bookshop. Additional information on the magnitude of operation is referred to in notes 14.5 to 14.7.

5 The classifications of income and expenditure used throughout the accounting system conform to the instructions issued by the Department of Employment, Education and Training in relation to the annual collection of financial statistics.

6 The University's liability in respect of long service leave and accumulated recreation leave is not included in the financial statements on the basis that the expenditure is charged in the accounts in the year in which the leave is taken or the staff member retires or resigns. The total liability for accumulated long service leave and accumulated recreation leave is estimated:

	1987	1986
Estimated long service leave liability	\$14.0M	\$13.5M
Estimated accumulated recreation leave liability	\$5.0M	Not available

7 During 1987 a loan of \$2.0M secured by guarantee was taken up with VicFin for the development of the University Science Park (Statement 2).



**8** Investments of the University's Common Fund are managed by a fund manager and are included in the accounts on the basis of statements from the fund manager. Investments held in the name of the fund manager on behalf of the University at 31 December 1987 are recorded in the accounts at cost (Statement 2).

The Common Fund investment manager reported a positive result on University investment earnings based on market values for the financial year ended 31 December 1987 following the share market fall in October 1987. The investment manager expressed confidence in the future of the Common Fund portfolio based on the high quality of the investments held in the portfolio.

During the year the University's short-term investments were transferred to a fund manager.

**9** The University has taken up certain sub-leases of accommodation with the Monash Medical Centre, Clayton, which expire in 1998. These amounts were fully expended in the 1985 and 1986 accounts in accordance with the accounting principles explained in Note 3 above.

**10** In vitro fertilisation services provided at the Epworth Hospital are now carried out by the University company IMC Pty Ltd, which was incorporated during March 1988. The University, as a result of the incorporation, has received a substantial payment of \$500 000 under the new arrangements and further payments totalling \$750 000 will be received in 1988.

**11 Superannuation and pension schemes (Statement 14)** During 1981, a defined benefit superannuation scheme called the 'M' scheme was introduced, a large part of the initial contribution coming from the surrender and transfer of endowment policies formerly held in the 'A' superannuation scheme.

Fund investments are managed by fund managers and are included in the accounts on the basis of statements from the fund managers. Investments held in the names of the fund managers at 31 December 1987 are recorded in the accounts at fund allocation prices reflecting the underlying market values of the investments. Other investments of the scheme are valued at cost.

**12 Monash University Foundation (Statement 15)** During 1983 the University created a trust entitled the Monash University Foundation. The trust receives the proceeds of general public appeals conducted by the University, unspecified gifts and bequests and part of the funds earned by the University. The University is the sole beneficiary of the trust and received contributions from the foundation as follows:

	1987 \$	1986 \$
Operating funds	2 700 000	—
General donations	491 000	2 272 000
	<u>3 191 000</u>	<u>2 272 000</u>

Investments of the foundation are managed by a fund manager and are recorded in the accounts at cost.

**13 Associated companies** During 1987 the University's wholly owned company, Montech Pty Ltd, formed a subsidiary company called Wills Records Office Pty Ltd. The inaugural accounting period for Wills Records Office Pty Ltd, a wills registration company, ended on 30 June 1988.

At 31 December 1987 the companies related to the University include: Montech Pty Ltd and Wills Records Office Pty Ltd. Consolidated accounts have not been prepared for 1987 but will be prepared in the future as required under the *Annual Reporting Act 1983*.

**14** The following additional information is provided in respect of the statements of income and expenditure.

**14.1 Private and indirect Government research grants — income  
(Statement 7)**

	\$
<i>Commonwealth Government</i>	
Australian Research Grants Scheme	2 586 836

	\$
<i>Grants and donations Commonwealth Government-financed bodies</i>	
National Health and Medical Research Council	4 235 218
Commonwealth Tertiary Education Commission — Research Centres of Excellence	530 998
National Research Fellowships Scheme	361 727
Australian Wool Corporation	239 354
Commonwealth Department of Health	205 000
National Energy Research, Development and Demonstration Program	191 084
Electricity Supply Association of Australia	170 000
CSIRO/Monash Collaborative Research Fund (includes Monash \$60 000)	120 000
Australian Water Research Advisory Council	97 227
Industry Research and Development Board	66 860
Australian National Parks and Wildlife Service	65 000
National Occupational Health and Safety Commission	51 751
Department of Aboriginal Affairs	50 700
Total of grants of \$50 000 or less per grantor	430 684
	<u>6 815 603</u>

<i>State Government</i>	
Victorian Law Foundation	79 581
Department of Industry, Technology and Resources	76 500
Health Commission of Victoria	62 421
Coal Corporation of Victoria	50 802
Ministry of Education	40 660
	<u>309 964</u>
	<u>7 125 567</u>

	\$
<i>Non-Government</i>	
Biotechnology Australia	247 880
Anti Cancer Council of Victoria	234 644
Australian Drug Investment Ltd	125 000
National Heart Foundation	123 934
Australian Drug Development Ltd	110 000
Commonwealth Serum Laboratories	108 728
George Hicks	90 009
Australian Tobacco Research	89 788
Telecom Australia	87 500
Broken Hill Proprietary Company Ltd	86 763
Sudden Infant Death Research Foundation	82 943
Celgene Corporation	77 403
Qlone Limited	60 249

CCH Australia Ltd	60 000
Arthritis Foundation	52 873
Total of grants of \$50 000 or less per grantor	1 577 023
	<u>3 214 737</u>
Grand total	<u>12 927 140</u>

#### 14.2 Sports and Recreation and Union activities (Statement 9)

	1987 \$	1986 \$
<i>Catering</i>		
Income	2 458 488	2 026 675
Expenditure	<u>2 543 088</u>	<u>2 039 624</u>
Result (deficit)	<u>(84 600)</u>	<u>(12 949)</u>
<i>Other (includes sporting activities)</i>		
Income	1 704 722	1 555 210
Expenditure	<u>1 658 319</u>	<u>1 525 062</u>
Result (surplus)	<u>46 403</u>	<u>30 148</u>

#### 14.3 Income — outside earnings (Statement 11)

	1987 \$	1986 \$
Library (photocopy charges, fines etc.)	696 970	671 555
Theatre income	600 463	632 169
Computer Centre	282 209	432 204
Faculty of Engineering	601 166	515 566
Faculty of Economics and Politics	677 393	135 209
Faculty of Medicine — clinical loadings for sessional services	396 050	394 192
Other	2 372 110	851 987
Faculty of Science	266 883	181 726
Faculty of Law	214 445	249 877
Other	<u>2 005 685</u>	<u>1 736 580</u>
	<u>8 113 374</u>	<u>5 801 065</u>

#### 14.4 Income — other (Statement 11)

	1987 \$	1986 \$
Interest earnings	<u>— (1)</u>	<u>5 608 905</u>

(1) From 1987 this item is reflected under Non-operating Fund.

#### 14.5 University bookshop (Statement 11)

	1987 \$	1986 \$
Income	749 278	629 194
Expenditure	<u>575 107</u>	<u>526 802</u>
Result (surplus)	<u>174 171</u>	<u>102 392</u>

#### 14.6 Halls of residence (Statement 11)

	1987 \$	1986 \$
Income	2 766 827	2 678 600
Expenditure	<u>2 938 745</u>	<u>2 761 265</u>
Result (deficit)	<u>(171 918)</u>	<u>(82 665)</u>

**14.7 South east flats (Statement 11)**

	1987	1986
	\$	\$
Income	207 677	200 266
Expenditure	187 107	149 566
Result (surplus)	<u>20 570</u>	<u>50 700</u>

**14.8 Expenditure (Statement 11)**

	1987	1986
	\$	\$
Other items — Monash University Foundation	<u>— (1)</u>	<u>2 683 000</u>

(1) From 1987 this item is reflected against Non-operating Fund (Statement 4).

**14.9 Monash Graduate Scholarships (Statement 11)** This expenditure in 1987 is recorded against the Operating Fund (Statement 3).

**15 Operating Fund, Expenditure Other items (Statement 3)** This classification conforms with DEET requirements for the annual statistical collection. The major components are:

**15.1 Teaching and research — Other items**

	\$000
Visiting lecturers	259
External supervision of students	230
Leo Cussen Institute	425
Travel	314
Other	84 Cr.
	<u>1 144</u>

**15.2 General services — Overheads — Other items**

	\$000
Insurance	250
Publicity, ceremonies	214
Printing and stationery	297
Maintenance of fixtures and furnishings	26
Subscriptions and contributions to bodies such as VTAC etc.	306
	<u>1 093</u>

**15.3 Operating Fund, Income (Statement 3)** *Higher Education Administration Charge* Commencing in 1987, the Commonwealth Government introduced by way of amendment to the *States Grants (Tertiary Education Assistance) Act 1984*, a Higher Education Administration Charge of \$250 per enrolment to be collected by the University. Under the amending legislation, the Commonwealth Government reduced the amount specified in the legislation as payable to the University for University purposes by an amount equivalent to 90 percent of the amount estimated that the University would receive from the collection of the Higher Education Administration Charge. The balance, 10 percent, of the charge is to be retained by the University as a contribution towards its administrative costs.

For 1987, the level of recurrent funds forwarded by the Commonwealth Government to the University was reduced by an amount of \$3 080 475 representing 90 percent of the estimated 1987 collections of \$3 422 750 from the Higher Education Administration Charge. An additional amount of \$37 500 was received as a result of actual enrolments exceeding the estimated enrolments, thereby increasing the total collections to \$3 460 250. The amount shown as Recurrent Grant — Commonwealth Government, \$99 189 525, represents the amount received directly by the University from the Commonwealth Government. There were no charges outstanding as at 31 December 1987.

## (1) Summary statement showing income and expenditure for all general purposes for the year ended 31 December 1987

	3	4	5	6	7	8	9	10	11	12		
	Operating fund	Non-operating fund	Equipment grant	Special research grant	Private and indirect Gov't research grants	General donations	Sports and Recreation and Union activities	Amenities develop't fund	General auxiliary activities	Fire insurance fund	Total	1986 Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Income</b>												
Commonwealth Government grants	99 564 525	400 000	5 627 000	1 717 000	2 586 836						109 895 361	106 118 641
State Government grant	835 000										835 000	408 000
Other	6 634 242	5 220 800			10 340 304	2 592 001	2 858 973	1 053 228	8 113 374	76 301	36 889 223	28 531 933
<b>Total income</b>	107 033 767	5 620 800	5 627 000	1 717 000	12 927 140	2 592 001	2 858 973	1 053 228	8 113 374	76 301	147 619 584	135 058 574
<i>Less</i>												
<b>Expenditure</b>												
Academic activities	72 424 251		3 424 478	1 714 245	10 870 616	1 442 713					89 876 303	85 254 441
Academic services	10 171 606		1 380 583			40 314					11 592 503	10 236 401
Student services	2 368 032		16 605		637 680	82 006					3 104 323	2 695 612
General services	18 896 071	3 132 876	448 932	2 755	596 506	189 918		298 036	457 735		24 022 829	22 450 414
Public services	138 999		12 030			86					151 115	135 568
Other	120 302	3 074 071				65 760	2 777 478	260 441	6 954 518	500	13 253 070	12 958 711
<b>Total expenditure</b>	104 119 261	6 206 947	5 282 628	1 717 000	12 104 802	1 820 797	2 777 478	558 477	7 412 253	500	142 000 143	133 731 147
Surplus (deficit) for the year	2 914 506	(586 147)	344 372	—	822 338	771 204	81 495	494 751	701 121	75 801	5 619 441	1 327 427
Transfer	(904 211)	2 046 600				(1 925 750)			783 361			
Surplus (deficit) at 1 January 1987	(822 195)	—	356 440	—	2 129 358	6 231 790	634 278	(444 948)	7 672 691	335 565	16 092 979	14 765 552
<b>Accumulated surplus at 31 December 1987</b>	1 188 100	1 460 453	700 812	—	2 951 696	5 077 244	715 773	49 803	9 157 173	411 366	21 712 420	16 092 979



(2) Statement of balances for all general purposes at 31 December 1987

1986 \$		1987 \$	Note
	<b>Accumulated funds</b>		
822 195 Dr.	Operating fund	1 188 100	
—	Non-operating fund	1 460 453	
356 440	Equipment grant	700 812	
2 129 358	Private and indirect Government research grants	2 951 696	
6 231 790	General donations	5 077 244	
634 278	Union and Sports & Recreation activities	715 773	
444 948 Dr.	Amenities development fund	49 803	
7 672 691	General auxiliary activities	9 157 173	
335 565	Fire insurance fund	411 366	
<u>16 092 979</u>	<b>Total accumulated funds</b>	<u>21 712 420</u>	
	<i>Represented by</i>		
	<b>Investments</b>		
9 998	Montech Pty Limited	9 998	13
	Investments in managed funds —		
1 492 612	Westpac Investment Management Pty Ltd	1 722 832	8
	(Market value: 31 December 1987 — \$2 161 721 31 December 1986 — \$2 165 077)		
<u>1 502 610</u>		<u>1 732 830</u>	
	<b>Current assets</b>		
185 479	Cash at bank and on hand	313 313	
39 083 782	Short term investments	46 290 540	
	Debtors —		
851 700	Accrued Government grants	340 000	
—	Montech Pty Ltd	113 183	
3 128 332	Other	4 242 705	3.3
1 081 808	Stock on hand, at cost less obsolescence	1 232 689	3.2
60 647	Payments in advance	176 844	
<u>44 391 748</u>		<u>52 709 274</u>	
45 894 358		54 442 104	
	<i>Less</i>		
	<b>Current liabilities</b>		
1 243 745	Bank overdraft	1 460 989	
8 550 856	Creditors and accrued expenses	8 779 524	3.4
3 025 317	Students' fees received in advance	3 363 578	
15 558 462	Government grants received in advance	15 838 769	
<u>28 378 380</u>		<u>29 442 860</u>	
	<b>Long-term liabilities</b>		
1 422 999	Loans on mortgage	1 286 824	
—	Loan — VicFin	2 000 000	7
<u>1 422 999</u>		<u>3 286 824</u>	
<u>29 801 379</u>		<u>32 729 684</u>	
<u>16 092 979</u>	<b>Net assets</b>	<u>21 712 420</u>	

**(3) Operating fund — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
		<b>Income</b>	
97 198 000	Commonwealth Government grant	99 189 525	<b>15.3</b>
—	Commonwealth Government grant — teaching hospitals	375 000	
408 000	State Government grant	835 000	
—	Higher education administration charge	3 460 250	
—	Full fee paying students	343 900	
—	Grant from Monash University Foundation	2 700 000	<b>12</b>
—	Other income	130 092	
<u>97 606 000</u>	<b>Total income</b>	<u>107 033 767</u>	
	<i>Less</i>		
	<b>Expenditure</b>		
	<i>Academic activities</i>		
	Teaching and research —		
61 574 306	Salaries and related items	64 008 988	
3 779 604	Maintenance	4 837 337	
1 826 597	Computing services	1 505 738	
669 619	Equipment	587 190	
257 856	Outside studies program	176 801	
156 041	New appointments	164 256	
1 156 459	Other items	1 143 941	<b>15.1</b>
<u>69 420 482</u>		<u>72 424 251</u>	
	<i>Academic services</i>		
	Libraries —		
4 875 571	Salaries and related items	5 030 282	
2 425 940	Books and journals	2 976 045	
274 864	Maintenance	258 829	
157 146	Computing services	114 696	
—	Equipment	8 289	
28 930	Other items	29 687	
<u>7 762 451</u>		<u>8 417 828</u>	
	Computing —		
1 681 593	Salaries and related items	1 782 396	
212 729	Maintenance	152 161	
4 275	Equipment	11 264	
(2 192 484)	Recoveries	(1 762 083)	
7 917	Other items	17 718	
<u>(285 970)</u>		<u>201 456</u>	
	Other academic services —		
1 490 280	Salaries and related items	1 474 221	
98 702	Other items	78 101	
<u>1 588 982</u>		<u>1 552 322</u>	
<u>78 485 945</u>	<i>Sub-total carried forward</i>	<u>82 595 857</u>	

**(3) Operating fund — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
78 485 945	<i>Sub-total brought forward</i>	82 595 857	
	<i>Student services</i>		
845 798	Salaries and related items	936 033	
88 604	Scholarships	1 396 573	
23 683	Other items	35 426	
958 085		2 368 032	
	<i>General services</i>		
	Administration —		
7 194 816	Salaries and related items	7 667 238	
210 309	Computing services	138 727	
182 435	Other items	340 867	
7 587 560		8 146 832	
	<i>Overheads</i>		
1 062 681	Postage, telephone and advertising	1 135 184	
264 512	Furniture and furnishings	220 712	
1 833 292	Power, lighting and heating	1 968 039	
906 066	Other items	1 092 828	15.2
4 066 551		4 416 763	
	<i>Buildings and grounds —</i>		
4 878 561	Salaries and related items	5 013 562	
1 522 396	Maintenance	1 095 930	
254 996	Other items	222 984	
6 655 953		6 332 476	
	<i>Public services</i>		
	Continuing education —		
132 299	Salaries and related items	138 358	
415	Other items	641	
132 714		138 999	
116 070	<i>Union administration</i>	120 302	
98 002 878	<b>Total expenditure</b>	104 119 261	
396 878 (D)	Surplus for the year	2 914 506	
—	Transfer to general auxiliary activities	904 211Dr.	2
425 317	Deficit at 1 January 1987	822 195	
822 195 (D)	<b>Accumulated surplus at 31 December 1987</b>	1 188 100	

**(4) Non-operating fund — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
	<b>Income</b>		
378 000	Commonwealth Government grant —		
—	Minor building works	400 000	
378 000	Other	5 220 800	14.4
	<b>Total income</b>	<b>5 620 800</b>	
	<i>Less</i>		
	<b>Expenditure</b>		
	General services —		
—	Overheads	621 322	
378 000	Furniture and furnishings	2 079 730	
—	Buildings and grounds —	431 824	
—	Building construction and site works	2 610 000	14.8
—	Maintenance	464 071	
—	Monash University Foundation		
378 000	Other items	6 206 947	
	<b>Total expenditure</b>	<b>6 206 947</b>	
—	Deficit for the year	586 147	
—	Transfer from general auxiliary activities	2 046 600	Cr. 2
—	<b>Accumulated surplus at 31 December 1987</b>	<b>1 460 453</b>	

**(5) Equipment grant — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	
	<b>Income</b>		
4 363 000	Commonwealth Government grant	5 627 000	
4 363 000	<b>Total income</b>	<b>5 627 000</b>	
	<i>Less</i>		
	<b>Expenditure</b>		
	<i>Academic activities</i>		
2 702 877	Teaching and research —	3 424 478	
	Equipment		
	<i>Academic services</i>		
8 724	Libraries —	3 785	
37 299	Books and journals	37 062	
—	Equipment	5 538	
46 023	Maintenance	46 385	
708 737	Computing	1 123 055	
311 235	Other academic services	211 143	
21 933	<i>Student services</i>	16 605	
	<i>General services</i>		
509 814	Administration	423 504	
37 948	Buildings and grounds	25 428	
547 762		448 932	
777	<i>Public services</i>	12 030	
4 339 344	<b>Total expenditure</b>	<b>5 282 628</b>	
23 656	Surplus for the year	344 372	
332 784	Surplus at 1 January 1987	356 440	
356 440	<b>Accumulated surplus at 31 December 1987</b>	<b>700 812</b>	

**(6) Special research grant — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$
	<b>Income</b>	
1 646 000	Commonwealth Government grant	1 717 000
1 646 000	<b>Total income</b>	1 717 000
	<i>Less</i>	
	<b>Expenditure</b>	
	<i>Academic activities</i>	
	Teaching and research —	
888 107	Salaries and related items	1 055 435
535 151	Maintenance	405 044
217 186	Other items	253 766
1 640 444		1 714 245
	<i>General services</i>	
5 556	Postage, telephone and advertising	2 755
1 646 000	<b>Total expenditure</b>	1 717 000
—	Surplus for the year	—

**(7) Private and indirect Government research grants — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
	<b>Income</b>		
2 084 241	Commonwealth Government grant	2 586 836	
	Grants and donations		
5 717 851	Government-financed bodies	7 125 567	14.1
3 134 286	Other	3 214 737	14.1
8 852 137		10 340 304	
10 936 378	<b>Total income</b>	12 927 140	
	<i>Less</i>		
	<b>Expenditure</b>		
	<i>Academic activities</i>		
	Teaching and research —		
6 753 763	Salaries and related items	7 883 726	
1 691 152	Maintenance	1 678 000	
180	Computing services	2 699	
854 433	Equipment	960 139	
263 495	Other items	346 052	
9 563 023		10 870 616	
	<i>Student services</i>		
380 767	Scholarships	637 680	
	<i>General services</i>		
18 405	Postage, telephone and advertising	10 347	
—	Furniture and furnishings	10 036	
4 664	Buildings maintenance	16 885	
—	Building construction and site works	556 566	
—	Other items	2 672	
23 069		596 506	
9 966 859	<b>Total expenditure</b>	12 104 802	
969 519	Surplus for the year	822 338	
1 159 839	Surplus at 1 January 1987	2 129 358	
2 129 358	<b>Accumulated surplus at 31 December 1987</b>	2 951 696	



**(8) General donations — statement of income and expenditure for the year ended  
31 December 1987**

1986 \$		1987 \$	Note
	<b>Income</b>		
	<i>Donations</i>		
680 620	Government-financed bodies	322 057	<b>12</b>
2 272 000	Monash University Foundation	491 000	
1 471 911	Other	1 476 637	
<u>4 424 531</u>		<u>2 289 694</u>	
	<i>Appeals</i>		
56 832	Library books	57 074	
304	Other	1 146	
<u>57 136</u>		<u>58 220</u>	
237 954	<i>Other income</i>	244 087	
<u>4 719 621</u>	<b>Total income</b>	<u>2 592 001</u>	
	<i>Less</i>		
	<b>Expenditure</b>		
	<i>Academic activities</i>		
900 818	Teaching and research —		
333 509	Salaries and related items	984 400	
158 535	Maintenance	225 791	
175 753	Equipment	48 586	
	Other items	183 936	
<u>1 568 615</u>		<u>1 442 713</u>	
	<i>Academic services</i>		
	Libraries —		
63 809	Books and journals	36 302	
1 012	Other items	3 088	
<u>64 821</u>		<u>39 390</u>	
38 192	Computing —		
	Salaries and related items	—	
724	Other academic services —		
1 206	Salaries and related items	447	
	Other items	477	
<u>1 930</u>		<u>924</u>	
<u>1 673 558</u>	<i>Sub-total carried forward</i>	<u>1 483 027</u>	

**(8) General donations — statement of income and expenditure for the year ended  
31 December 1987**

1986 \$		1987 \$	Note
1 673 558	<i>Sub-total brought forward</i>	1 483 027	
	<i>Student services</i>		
8 282	Salaries and related items	22 701	
63 214	Scholarships	54 173	
(500)	Other items	5 132	
70 996		82 006	
	<i>General services</i>		
	Administration —		
—	Equipment	21 200	
11 986	Other items	29 664	
11 986		50 864	
	Overheads —		
8 926	Furniture and furnishings	4 118	
14 416	Postage, telephone and advertising	17 782	
23 342		21 900	
	Buildings and grounds —		
478 064	New buildings	116 843	
1 637	Maintenance	311	
479 701		117 154	
	<i>Appeals</i>		
58 308	Library books	57 093	
—	Other	8 302	
58 308		65 395	
2 077	<i>Public services</i>	86	
5 390	<i>Union activities</i>	365	
2 325 358	<b>Total expenditure</b>	1 820 797	
2 394 263	Surplus for the year	771 204	
—	Transfer to general auxiliary activities	1 925 750 Dr.	2
3 837 527	Surplus at 1 January 1987	6 231 790	
6 231 790	<b>Accumulated surplus at 31 December 1987</b>	5 077 244	

**(9) Sports and Recreation and Union activities — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
	<b>Income</b>		
2 246 994	Union fees	2 571 680	
290 439	Other	287 293	
<u>2 537 433</u>	<b>Total income</b>	<u>2 858 973</u>	
	<i>Less</i>		
	<b>Expenditure</b>		
583 259	Sports and Recreation Association	657 611	
420 538	Monash Association of Students	507 380	
258 773	Clubs and Societies Council	274 427	
305 647	Union tuition and courses	259 430	
213 000	Union building management	224 878	
785 812	Union Administration and special project	853 819	
—	Student dental scheme	22 666	
	Business activities		
12 949	Catering — operating deficit	84 600	
(30 148)	Other — operating surplus	(46 403)	
<u>2 549 830</u>		<u>38 197</u>	
	<i>Less</i>	<u>2 838 408</u>	
	Contribution by University for use of facilities by staff	60 930	
57 619			
<u>2 492 211</u>	<b>Total expenditure</b>	<u>2 777 478</u>	
45 222	Surplus for the year	81 495	
589 056	Surplus at 1 January 1987	634 278	
<u>634 278</u>	<b>Accumulated surplus at 31 December 1987</b>	<u>715 773</u>	

14.2

**(10) Amenities development fund — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$
	<b>Income</b>	
618 762	Amenities and development fees	705 801
329 574	Rentals and other	347 427
<u>948 336</u>		<u>1 053 228</u>
	<i>Less</i>	
	<b>Expenditure</b>	
	<i>General services</i>	
278 230	New buildings	23 164
267 594	Maintenance — buildings	263 596
17 893	Furniture and furnishings	11 276
<u>563 717</u>		<u>298 036</u>
	<i>Other items</i>	
32 442	Equipment	91 376
120 040	Occupancy expense	123 960
53 896	Other items	45 105
<u>206 378</u>		<u>260 441</u>
<u>770 095</u>	<b>Total expenditure</b>	<u>558 477</u>
178 241	Surplus for the year	494 751
623 189	Deficit at 1 January 1987	444 948
<u>444 948 (D)</u>	<b>Accumulated surplus at 31 December 1987</b>	<u>49 803</u>

**(11) General auxiliary activities — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
	<b>Income</b>		
	Commonwealth Government grant:		
90 400	Halls of residence	—	
5 801 065	Outside earnings	8 113 374	14.3
5 608 905	Other income	—	14.4
<u>11 500 370</u>	<b>Total income</b>	<u>8 113 374</u>	
	<i>Less</i>		
	<b>Expenditure</b>		
	<i>Student services</i>		
1 263 831	Scholarships	—	14.9
	<i>General services</i>		
	Overheads —		
22 545	Furniture and furnishings	81 220	
	Buildings and grounds —		
1 924 977	Building construction and site works	243 280	
159 695	Maintenance	133 235	
<u>3 371 048</u>		<u>457 735</u>	
	<i>Other items</i>		
102 392 Cr.	University bookshop	174 171 Cr.	14.5
82 665	Halls of residence	171 918	14.6
50 700 Cr.	South east flats	20 570 Cr.	14.7
10 985	Owned houses and transit flats	28 869 Cr.	
	Outside earnings —		
2 683 000	Monash University Foundation	—	14.8
7 473 739	Other	6 978 222	
16 943 Cr.	Other	27 988	
<u>10 080 354</u>		<u>6 954 518</u>	
<u>13 451 402</u>	<b>Total expenditure</b>	<u>7 412 253</u>	
1 951 032 (D)	Surplus for the year	701 121	
—	Transfer from general donations	1 925 750 Cr.	2
—	Transfer from operating fund	904 211 Cr.	2
—	Transfer to non-operating fund	2 046 600 Dr.	2
9 623 723	Surplus at 1 January 1987	7 672 691	
<u>7 672 691</u>	<b>Accumulated surplus at 31 December 1987</b>	<u>9 157 173</u>	

**(12) Fire insurance fund — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$
	<b>Income</b>	
64 436	Income from investments	76 301
<u>64 436</u>	<b>Total income</b>	<u>76 301</u>
	<i>Less</i>	
	<b>Expenditure</b>	
—	Replacement of equipment	500
<u>—</u>	<b>Total expenditure</b>	<u>500</u>
64 436	Surplus for the year	75 801
271 129	Surplus at 1 January 1987	335 565
<u>335 565</u>	<b>Accumulated surplus at 31 December 1987</b>	<u>411 366</u>

**(13) Donor nominated trust funds — statement of income and expenditure for the year ended 31 December 1987**

1986		1987
\$		\$
	<b>Income</b>	
20 257	Income from investments	18 045
<u>20 257</u>	<b>Total income</b>	<u>18 045</u>
	<i>Less</i>	
	<b>Expenditure</b>	
900	Max Buxton Scholarship	500
508	The Graham John Beard Memorial Fund	767
1 222	J W Dodds Memorial Scholarship Fund	1 001
800	Vallejo Gantner Memorial Travel Fund	2 400
1 363	The Oscar Mendelsohn Lectures	1
108	Monash University Rowing Club	111
330	W P and H E O'Shea Fund	337
300	The David B Rosenthal Memorial Trust	—
1 302	Hume Turnbull Scholarship	1
5 779	The William and Katherine Winter Foundation	5 902
<u>12 612</u>	<b>Total expenditure</b>	<u>11 020</u>
<u>7 645</u>	<b>Surplus for the year</b>	<u>7 025</u>

**Balance sheet at 31 December 1987**

1986		1987
\$		\$
	<b>Accumulated funds</b>	
117 335	Funds at 1 January 1987	124 980
7 645	Surplus for the year	7 025
<u>124 980</u>	<b>Total accumulated funds</b>	<u>132 005</u>
	<i>Represented by</i>	
	<b>Investments</b>	
55 045	Government securities, at cost	55 045
25 491	Semi-government securities, at cost	40 552
17 960	Fixed-interest securities, at cost	5 000
7 654	Unsecured convertible notes, at cost	7 654
1 833	Ordinary shares, at cost	1 966
	(Market value:	
	31 December 1987 — \$7 280	
	31 December 1986 — \$7 040)	
<u>107 983</u>		<u>110 217</u>
	<b>Current assets</b>	
17 000	Fixed deposit stock	—
—	Flexible bank deposit	21 499
—	Cash at bank	289
<u>17 000</u>		<u>21 788</u>
	<i>Less</i>	
	<b>Current liability</b>	
3	Bank overdraft	—
<u>16 997</u>		<u>21 788</u>
<u>124 980</u>	<b>Total assets</b>	<u>132 005</u>



**(14) Superannuation and pension schemes — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$
	<b>Income</b>	
333 786	Members' contributions	55 523
249 005	University's contributions	103 872
12 171 311	Appreciation of managed funds	5 029 910
568 631	Income from other investments	91 990
30 942	Other income	61 007
<u>13 353 675</u>	<b>Total income</b>	<u>5 342 302</u>
	<i>Less</i>	
	<b>Expenditure</b>	
85 528 914	Lump sum withdrawal payments —	
684 312	members transferring to SSAU	16 456 138
2 644 863	Benefit payments to members	294 905
193 122	Payments on withdrawal	7 514
—	Other payments	320 179
—	Transfer to SSAU	15 198 747
<u>89 051 211</u>	<b>Total expenditure</b>	<u>32 277 483</u>
75 697 536	Deficit for the year	26 935 181
111 079 007	Surplus at 1 January 1987	35 381 471
<u>35 381 471</u>	<b>Accumulated surplus at 31 December 1987</b>	<u>8 446 290</u>

**(14) Superannuation and pension schemes — balance sheet at 31 December 1987 (excluding contributions applied as premiums to assurance policies with the staff superannuation scheme)**

1986 \$		1987 \$	Note
	<b>Accumulated funds</b>		
35 381 471	Accumulated surplus	8 446 290	
	<i>Represented by</i>		
	<b>Investments</b>		
1 600 000	Term deposits	—	
10 990 921	Investments in managed funds —	—	11
	Australian Mutual Provident Society		
12 833 697	National Mutual Life Association of Australasia		
9 576 814	Limited	3 207 889	
—	Westpac Investment Management Pty Ltd	5 182 553	
—	Semi-government securities, at cost	65 837	
<u>35 001 432</u>		<u>8 456 279</u>	
	<i>Less</i>		
(380 039)	<b>Current liability</b>		
	University current account	9 989	
<u>35 381 471</u>	<b>Net assets</b>	<u>8 446 290</u>	

**(15) Monash University Foundation — statement of income and expenditure for the year ended 31 December 1987**

1986 \$		1987 \$	Note
	<b>Income</b>		
2 832 336	Income from investments	4 240 249	
<u>2 832 336</u>	<b>Total income</b>	<u>4 240 249</u>	
	<i>Less</i>		
	<b>Expenditure</b>		
71 282	Investment adviser's fee	76 925	
<u>1 288</u>	Bank charges	<u>477</u>	
<u>72 570</u>		<u>77 402</u>	
2 759 766	Surplus for the year	4 162 847	
	<i>Add</i>		
606 122	Surplus at 1 January 1987	893 888	
<u>3 365 888</u>		<u>5 056 735</u>	
	<i>Less</i>		
1 500 000	Allocation to capital funds to preserve capital	1 200 000	
	Distribution to Monash University —		
472 000	From surplus for the year	491 000	12
500 000	From accumulated surplus	<u>500 000</u>	
		991 000	
<u>893 888</u>	<b>Accumulated surplus at 31 December 1987</b>	<u>2 865 735</u>	

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(15) Monash University Foundation — balance sheet at 31 December 1987

1986 \$		1987 \$	Note
	<b>Accumulated funds</b>		
	Capital funds		
14 432 700	Balance at 1 January 1987	17 315 700	
	Add		
1 500 000	Allocation from accumulated surplus to preserve capital	1 200 000	
2 683 000	Contribution from Monash University	2 610 000	
18 615 700		21 125 700	
	Less		
1 300 000	Distribution to Monash University from capital	2 200 000	12
17 315 700		18 925 700	
893 888	Accumulated surplus	2 865 735	
18 209 588	Balance at 31 December 1987	21 791 435	
	<b>Represented by</b>		
	<b>Investments</b>		
18 246 214	Investment portfolio — J P Morgan Investment Management Australia Limited	21 236 148	
	(Market value: 31 December 1987 — \$22 784 106 31 December 1986 — \$21 723 624)		
	<b>Current assets</b>		
98	Cast at bank	71	
—	Debtor — Monash University	593 000	
		593 071	
	Less		
36 724	<b>Current liabilities</b>		
(36 626)	Accrued charges	37 784	
18 209 588		555 287	
	<b>Total net assets</b>	21 791 435	

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(16) Montech Pty Ltd — notes to and forming part of the accounts — 1987

- 1 **Statutory reporting requirements** Montech Pty Ltd is a company established by Monash University under the authority of section 35(b) of the *Monash University Act 1958*. The principal objects of the company are to undertake research, development, consultancy and other services for commercial organisations, public bodies or individuals and also to promote the use of the results of University research. The 1987 financial statements of Montech Pty Ltd have been prepared pursuant to section 35(b) of the *Monash University Act 1958*.
- 2 **Summary of accounting policies** The accounts have been prepared in accordance with the historical cost convention on a full accrual basis and in accordance with the Australian Accounting Standards. The company commenced full operations in December 1986. To date no physical assets have been acquired by the company and no liabilities exist in respect of employee benefits.
- 3 **Wills Records Office Pty Ltd** This company was established in 1987 and Montech Pty Ltd holds a controlling interest in the company. The principal objects of the company are to register and maintain information concerning wills for subscribers throughout Australia. Consolidated financial statements covering Montech Pty Ltd and Wills Records Office Pty Ltd as at 31 December 1987 have not been prepared as the inaugural financial reporting period of the subsidiary company under the Companies (Victoria) Code ended at 30 June 1988. The accounts of the company are audited by Nelson Parkhill BDO, Chartered Accountants.
- 4 **Monash University current account** Under a current account facility Monash University initially meets certain costs of the company pending subsequent recoupment. An upper limit of \$175 000 on draw-downs by the company on the current account has been set.
- 5 **Consultancy and project fees** This income relates to the development of the various projects initiated by the company. These projects include consultancy work on behalf of Monash University, contract research and development work within the University faculties and promotion of courses and seminars.

(16) Montech Pty Ltd — profit and loss account for the year ended 31 December 1987

1986		1987
\$		\$
	<b>Income</b>	
—	Consultancy fees — Monash University	45 833
—	Grant — Monash University	24 321
—	Consultancy and project fees — other	120 694
—	Other	384
—	<b>Total income</b>	<b>191 232</b>
	<i>Less</i>	
	<b>Expenditure</b>	
—	Accommodation, services, accountancy and management fee — Monash University	18 225
—	Salaries and related on-costs	96 412
—	Other overheads	81 422
—	<b>Total expenditure</b>	<b>196 059</b>
—	<b>Net loss</b>	<b>4 827</b>

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(16) Montech Pty Ltd — balance sheet as at 31 December 1987

1986		1987
\$		\$
	<b>Shareholders' funds</b>	
	Authorised capital —	
100 000	100 000 ordinary shares at \$1 each	<u>\$100 000</u>
	Issued capital —	
10 000	10 000 ordinary shares of \$1 each, fully paid	10 000
—	Accumulated loss	<u>4 827</u>
10 000	<b>Total shareholders' funds</b>	<u>5 173</u>
	<i>Represented by</i>	
	<b>Current assets</b>	
10 000	Cash at bank	87 577
—	Debtors —	
—	Amount due from related corporation	21 269
—	Other debtors	<u>9 440</u>
		118 286
	<b>Investments</b>	
—	Shares in Wills Records Office Pty Ltd	<u>70</u>
10 000	<b>Total assets</b>	<u>118 356</u>
	<i>Less</i>	
	<b>Current liability</b>	
—	Monash University current account	<u>113 183</u>
10 000	<b>Net assets</b>	<u>5 173</u>



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- (17) **Wills Records Office Pty Ltd — Notes to and forming part of the accounts — 1987**
- 1 **Statutory reporting requirements** The 1987 financial accounts of Wills Records Office Pty Ltd have been prepared pursuant to Section 35B of the *Monash University Act 1958*.
- 2 **Summary of accounting policies** The accounts have been prepared in accordance with the historical cost convention on a modified accrual basis.
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(17) **Wills Records Office Pty Ltd — profit and loss account for the period 25 February 1987 (incorporation) to 31 December 1987**

1986 \$		1987 \$
	<b>Income</b>	
—	Registration fees	265
—	<b>Total income</b>	265
	<i>Less</i>	
	<b>Expenditure</b>	
—	Intellectual property acquisition	21 000
—	Registration fees	99
—	Other overheads	170
—	<b>Total expenditure</b>	21 269
—	<b>Net loss</b>	21 004

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(17) Wills Records Office Pty Ltd — balance sheet as at 31 December 1987

1986 \$		1987 \$
	<b>Shareholders' funds</b>	
	Authorised capital —	
—	35 000 'A' class ordinary shares at \$2 each	70 000
—	30 000 'B' class ordinary shares at \$1 each	30 000
		<u>100 000</u>
	Issued capital —	
—	35 'A' class ordinary shares of \$1 each, fully paid	70
—	30 'B' class ordinary shares of \$1 each, fully paid	<u>30</u>
		100
—	<b>Net loss</b>	21 004
—	<b>Total shareholders' funds</b>	<u>(20 904)</u>
	<i>Represented by</i>	
	<b>Current assets</b>	
—	Cash at bank	365
	<i>Less</i>	
—	<b>Current liability</b>	
—	Amount due to related corporation	<u>21 269</u>
—	<b>Excess of liabilities over assets</b>	<u>(20 904)</u>







