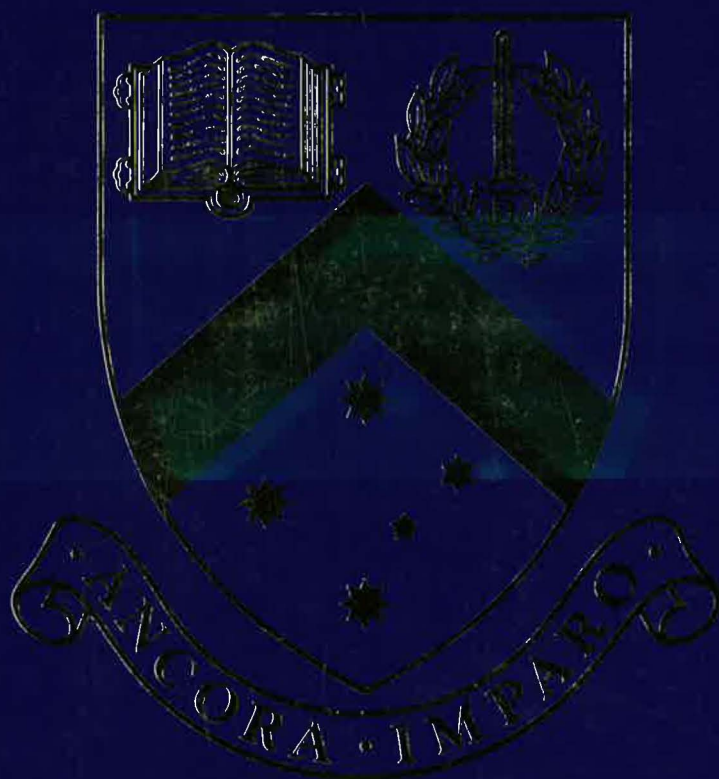
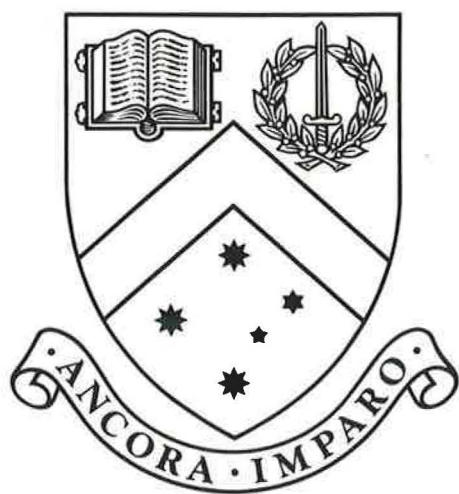


Monash University



Annual Report 1986

Monash University



Annual Report 1986

Monash University
Annual Report 1986
ISSN 0814-8597

Published by
Monash University
Clayton Victoria 3168
Australia

Telephone: 565 4000
Telegrams: Monashuni Melbourne
Telex: AA 32691

Typeset by Meredith Typesetting
Burnley Victoria

Printed by Brown Prior Anderson Pty Ltd
Burwood Victoria

**The Report of the Council
of Monash University for
the period 1 January 1986
to 31 December 1986**

In accordance with Section 41 of the Monash
University Act 1958, as amended, I submit
the report of the council for 1986.

For and on behalf of the council

**G H Lush
Chancellor**

CONTENTS

The Council of Monash University	1
Report of the Chancellor	3
Report of the Vice-Chancellor	6
Development and administration	9
Staff	10
Academic developments	
Degrees and diplomas conferred	12
Annual examination pass rates	14
Student enrolment	15
Faculty of Arts	18
Faculty of Economics and Politics	22
Faculty of Education	24
Faculty of Engineering	28
Faculty of Law	30
Faculty of Medicine	34
Faculty of Science	37
Library	40
University facilities	
Alexander Theatre	42
Monash University Bookshop	43
Religious Centre	43
Careers and Appointments	43
University Counselling	44
Students' Grants and Loans Committee	45
University Housing	45
Health Service	45
Research centres	
Centre for Continuing Education	46
Centre for Migrant and Intercultural Studies	46
Computer Centre	47
Graduate School of Environmental Science	50
Higher Education Advisory and Research Unit	51
Student activities	
Orientation	53
Sports and Recreation Association	53
Union — administration and general	54
Clubs and Societies	56
Arts and Crafts Centre	56
Monash Association of Graduate Students	57
Gifts and Grants	59
Finance	100
Accounts for the year 1986	103

THE COUNCIL

Members of council as at 31 December 1986

Members ex officio

The Honourable Sir George Hermann Lush,
LLM *Melb.* — *Chancellor*
Raymond Leslie Martin, AO, MSc *Melb.*, PhD
ScD *Cantab.*, DSc *ANU*, FRACI, FRSC,
FAA— *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
Edward James Hann, MP
Gerard Marshall Vaughan, ARMIT, DipEd
SCV, BE MEngSc PhD, ARACI, 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.*
Sir James Charles McNeill, CBE, HonDSc
N'cle, FASA, FAIM
Nigel Wood, BEc *NE*

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.* (*Eco-*
nomics and Politics)
Winifred McDonnell, BA MEd DipEd, FACE
(*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
Ian James Polmear, BMetE MSc DEng *Melb.*,
FTS, FIM, FIEAust
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

Keith Thomas Henry Farrer, OBE, MA *La T.*,
DSc *Melb.*, CChem, FRIC, FRACI, FIFST
(UK), FAIFST, FTS
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

Co-opted from among the deans of the faculties

Graeme Calderwood Schofield, OBE, MD
ChB NZ, DPhil *Oxon.*, FRACP, FACMA
William Angus Sinclair, MCom *Melb.*, DPhil
Oxon., FASSA

Elected by the non-academic staff

Jeffrey Saul Bender, DipLib *MSC*, BEc DipEd

Elected by the students of the University

Peter Antoni Clarke
Anthony Charles Holmes
Ian Thomas Sheehy
Secretary: Mr M D Watson

Changes in membership of council during 1986

Members who retired or resigned from office during 1986

Dr N J Gray (*Faculty of Medicine*) 1971–86;
Dr P F Hutson (*co-opted*) 1971–86;
Dr I McCance (*non-professorial teaching staff*)
1976–86;
Professor G C Schofield (*co-opted dean*)
1985–86;
Ms S R Thomson (*undergraduate and diploma students*) 1984–86; and
Mr G S Wilson (*non-academic staff*) 1978–86.

Members re-elected or re-appointed for a further term of office during 1986

The Hon. Dr J E Isaac (*co-opted*) 1986–90;
Mrs J Strauss (*non-professorial teaching staff*)
1986–90; and
Professor B O West (*professors*) 1986–90

Members elected or appointed to council during 1986

Mr J S Bender (*non-academic staff*) 1986–90;
Mr A C Holmes (*undergraduate and diploma students*) 1986–88;
Associate Professor W A Howard (*non-professorial teaching staff*) 1986–90;
Dr A R Moore (*Faculty of Medicine*) 1986–87;
and
Miss D R Pizzey (*co-opted*) 1986–89.

Vacancies in the membership of council as at 31 December 1986

REPORT OF THE CHANCELLOR

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

As is usual, the Monash University Council met on ten occasions in 1986, between the months of March to December inclusive. I chaired eight of these meetings. The Deputy Chancellor, Dr Isaac chaired the April meeting and, in the absence of both of us, Sir James McNeill was elected to chair the meeting in October. I am grateful to all who served on council and its committees during the year. The changes in membership are listed at the beginning of this report. Of the retiring members, Dr N J Gray and Dr P F Hutson served for fifteen years, Dr McCance for ten, and Mr Wilson for eight. Monash University is indebted to each of them for the contribution they made during their respective terms.

One further notable retirement from council occurred early in the following year. Professor R L Martin retired as the University's third Vice-Chancellor on 31 January 1987 after completing ten years in office. He attended his last meeting of council in December at which tribute was paid to the considerable achievements of his Vice-Chancellorship. I append to this report a minute of appreciation that was adopted by council early in 1987. It summarises Professor Martin's influence over the life and affairs of the University during his term as Vice-Chancellor, and is a measure of esteem and affection in which he will always be held at Monash.

The University celebrated the twenty-fifth anniversary of its commencement of undergraduate teaching in 1961 during the year. Details of the many activities mounted to commemorate the event are given elsewhere in this report. The celebrations culminated in a ceremony on 19 May during which council conferred honorary degrees on HRH The Duke of Edinburgh, The Rt Rev. P J Hollingworth, Sir Edward Hughes, Mr H M McKenzie, Sir James McNeill, and The Hon. Sir John Young. It was, in every sense, a 'right royal occasion'. At other graduation ceremonies during the year, honorary degrees were also conferred upon Mr Hiroyuki Iwaki, Mr B A Baxter, and Emeritus Professor K H Hunt.

At its March meeting, council noted with pleasure the creation of Mr H M McKenzie as an Officer in the Order of Australia in the Australia Day Honours List. Similar honours were conferred upon Professor P J Fensham and Dr A Serle in the Queen's Birthday Honours List, in company with Sir James McNeill who was created a Companion in the Order. In December, council conferred the title of Emeritus Professor upon Professor H C Bolton, Professor P Boss, Professor J D Legge, Professor R F P Van Der Borgh, and Professor K C Westfold, each of whom retired from the University on 31 December after distinguished service in their respective fields. In addition to scholarly achievement, Professor Legge was Dean of the Faculty of Arts from 1978 and Professor Westfold served the University in the several capacities as Dean of the Faculty of Science, Pro-Vice-Chancellor and, since 1982, Deputy Vice-Chancellor. Council also conferred the title of Emeritus Professor upon the Deputy Chancellor, The Hon. Dr J E Isaac, who occupied a chair of Economics at Monash between 1965 and 1973, to date from his retirement as a Deputy President of the Australian Conciliation and Arbitration Commission on 11 March 1987.

As part of the business of governing the University, council attended to and debated a number of important issues during 1986. It approved further measures related to implementation of the recommendations of the McNeill Report on the senior administrative structure of the University, and the establishment of Montech Pty Ltd, a wholly owned consulting company to assist in the development and marketing of relevant aspects of the University's research effort. Measures were also taken to divest the University of investment links with South Africa. In the broad area of personnel management, council established an Equal Opportunity Advisory Committee and gave preliminary consideration to procedures to be adopted for dealing with complaints of sexual harassment from staff and students. Council also approved plans to establish an Occupational Health and Safety Branch within the Uni-

The Vice-Chancellor, Professor Ray Martin (left), with Prince Philip and the Chancellor, Sir George Lush, after the Silver Jubilee graduation ceremony.



versity's administration to bring Monash into line with the provisions of new State legislation in this area. The transfer of the tasks of regulating University salaries and wages to Federal and State tribunals led to changes in the terms of reference and the structure of the council's Staff Committee.

A major issue during the year was the worsening financial pressure on the University library which, along with all other major academic libraries in the country, is suffering the dual effects of sharply escalating costs for books and periodicals and a weak Australian dollar. The Vice-Chancellor will have more to say on this matter in his report. I must say, however, that I was disappointed that a small section of the student body chose to direct towards the council its frustration about this matter at a time when council itself was equally concerned and sympathetic to the plight of students and staff alike in their quest to preserve the integrity of both the library's services and holdings. During the year, council also expressed concern about the introduction by the Commonwealth Government of the \$250 administration charge, particularly in regard to part-time students, and about the consequences of levying the overseas students charge on postgraduate students holding University scholarships. Again, I expect

the Vice-Chancellor will have more to say about these matters in his report.

In the latter part of the year the Academic Salaries Tribunal recommended salary increases for vice-chancellors and deputy vice-chancellors. This decision gave some practical recognition to the weight and variety of a vice-chancellor's responsibilities, and had the additional benefit of providing space between the standard professorial salary and the vice-chancellor's salary which could accommodate two or perhaps three significant intermediate salary levels.

Some uncertainty existed at the end of the year about the continuation of the Monash University Council as it is currently constituted pending the report of a review established by the Minister for Education into the composition of councils of Victorian universities. I was initially a member of this committee of inquiry under the chairmanship of Dr Pat Edgar of the Children's Television Workshop, but other commitments necessitated my relinquishing this role in favour of my predecessor as Chancellor of Monash University, The Hon. Sir Richard Eggleston. At the date of writing no report has been published.

The end of the year saw the first step taken towards setting up a Monash University Art Foundation.

RAYMOND LESLIE MARTIN

Vice-Chancellor 1977–87

The Monash University Council hereby pays tribute to Professor Raymond Leslie Martin, AO, MSc *Melb.*, PhD ScD *Cantab.*, DSc ANU, FRACI, FRSC, FAA, who served as Vice-Chancellor and an *ex officio* member of council from 1 February 1977 to 31 January 1987. During this decade, Professor Martin provided strong and consistent leadership to the University. Under his stewardship, Monash achieved and maintained an enviable reputation, in Australia and internationally, for the excellence of its research and teaching programs.

Professor Martin came to the Vice-Chancellorship at a time that corresponded quite closely to the beginning of a new austerity in funding for tertiary education in Australia. The 1960s and early 1970s were periods of rapid growth and readily available resources for Australia's university sector. Government attitudes changed in the mid-1970s, and the decade that followed was marked by sustained restrictions in funding that led to a time of quiescence for the nation's universities — the so-called 'steady state' period. It is to Professor Martin's lasting credit that he managed to generate during this period a spirit of enterprise and innovation within the Monash community, maintaining the momentum that had been built up in the earlier years of the University's initial growth and youthful vitality. He achieved this by establishing an infrastructure that ensured the wise husbandry of resources, while not impeding the decentralisation of academic decision-making to as close as possible to the sources of the University's teaching and research programs. He was also instrumental in establishing the Monash University Foundation in 1983 with the aim of providing a measure of financial autonomy to the University in years to come.

During Professor Martin's Vice-Chancellorship, some of the University's most respected and innovative research and graduate teaching centres were established. These include the Centre for Early Human Development, the Centre for Human Bioethics, the Centre for Molecular Biology and Medicine, and the Centre of Policy Studies. Their

successes show the wisdom of Professor Martin's acceptance of the largely interdisciplinary nature of much of today's scholarly research, and his readiness to support such activities by removing the traditional boundaries and budgetary constraints that mitigate against the creation of such ventures.

Professor Martin was most influential in helping to bridge the gaps between universities and the worlds of industry and commerce that have existed to the detriment of the Australian economy for far too long. One of his last projects as Vice-Chancellor was to oversee the establishment of Montech Pty Ltd, a consulting company wholly owned by the University with a continuing brief to facilitate the development and marketing of ideas generated within the University with commercial promise. By looking towards industry for new areas of collaborative research and sponsorship, Monash University is achieving a greater degree of independence by being less reliant on the Commonwealth Government as its sole source of funding, as well as helping to bring to commercial fruition the products of its endeavours in research. He also actively supported developments of this nature in a broader national forum through his chairmanship of the Australian Vice-Chancellors' Committee's Inter-University Committee on Research (IUCR) and the Joint CSIRO/IUCR Committee on Research, and his membership of the Joint Business Council of Australia/IUCR Committee on Research and Development.

Ray Martin's friendly, engaging manner often belied the strength and resolve that so typified his character. His warmth and friendship was known to many from all sections of the University community, and certainly to those members of council who served during his Vice-Chancellorship. It was with pleasure and pride that council acknowledged at its meeting in March 1987 the creation of Professor Martin as an Officer in the Order of Australia in the Australia Day Honours List. It is a fitting culmination to ten years of dedicated leadership to Monash University.

REPORT OF THE VICE-CHANCELLOR

Professor R L Martin AO MSc *Melb.* PhD ScD *Cantab.*
DSc ANU FRACI FRSC FAA

The *Act* which provides for the establishment and incorporation of Monash University requires its council to 'report the proceedings of the University' each year to the Governor in Council. A copy of the report is laid before the Legislative Council and the Legislative Assembly of Victoria, to which bodies the University is accountable. The twenty-sixth annual report will be my last report as the University's chief executive officer for the past ten of these twenty-six formative years.

The University has survived the growing pains of early childhood and the trauma of adolescence. It has overcome the problems of its teen-age years, and is now enjoying the benefits of youthful adulthood. Youth is important because it encourages intellectual creativity and enthusiasm in an organisation. This, combined with wisdom and the mature judgement of adulthood, should ensure that Monash will continue to consolidate its position as one of the nation's leading and most respected universities.

Judged by any criterion, 1986 has been a memorable year for the University. It has been a year in which a number of seeds, long dormant, have germinated, taken root and blossomed.

The week-long celebrations for the University's Silver Jubilee were launched officially by His Royal Highness the Duke of Edinburgh on Monday 19 May. Major features of the highly successful inauguration included a Jubilee Oration by Prince Philip, the presentation of a specially-designed medal to all staff members who had completed twenty-five years' service with the University, and the conferral of honorary doctorates on the Rt Rev. P J Hollingworth, Emeritus Professor Sir Edward Hughes, Mr H M McKenzie, Sir James McNeill and the Duke himself. An extremely full program of jubilee functions and events was planned by members of the University culminating in a highly successful Jubilee Open Day on Sunday 25 May.

One of the most significant developments during the year was the creation by the Victorian Government of the Monash Medical

Centre by amalgamating the boards of management of Prince Henry's Hospital, the Queen Victoria Medical Centre and the Moorabbin Hospital. The new 700-bed centre will be a major teaching and research resource for the Faculty of Medicine with the long-awaited virtue of proximity to the campus. Having served as a member of the Minister's Steering Committee for the relocation to Clayton of the old Queen Victoria Hospital it is specially gratifying for me to see this handsome new building nearing completion and coming in on budget and very nearly on schedule.

The new contoured Multidiscipline Building designed by Daryl Jackson and built by the University from its own resources has been completed. It is planned to landscape the surrounding area to beautify this southern gateway to the University. The heart of the building is the elegant University Art Gallery which, with the Robert Blackwood Hall and Alexander Theatre, provides Monash with the only major cultural complex outside the central business district of Melbourne. Council has agreed to my proposal that a Monash University Art Foundation should be established with the aim of funding the future purchase of significant art works for the University's Art Collection. The initial corpus of the foundation will be generated by the sale of Sir Arthur Streeton's painting of St Paul's Cathedral, London which is expected to bring a sum considerably in excess of \$100 000.

A spectacular development during the year has been the creation of an ornamental lake in the north-east corner of the campus by the Dandenong Valley Authority in association with the University. The creation of a flood-retarding basin was required to control the flow of drainage water during heavy storms and could easily have become a permanent eyesore on campus but for the Authority's generous cooperation with this imaginative solution to the problem.

Among the objects of the University under the *Act* is 'to aid by research and other means the advancement of knowledge and its prac-

tical application to primary and secondary industry and commerce'. The University took a major step forward this year in encouraging the application of knowledge by setting up a wholly-owned consulting company, Mon-tech Pty Ltd, which will promote the commercial development of the University's intellectual expertise. In conjunction with this development, it is planned to utilise land holdings on our eastern boundary to attract selected high-technology companies to a 'science park' environment and so enhance the University's image as a centre of pure and applied scientific excellence. In an interesting and parallel development, ICI Australia has agreed with the University to fund, initially for three years, a joint chair in industrial chemistry. The first occupant of the new chair will be Mr Asbjorn Baklien, an industrial chemist who has had a distinguished career in Australia and overseas.

The University artist, Mrs Celia Rosser, expects to complete next year the paintings in water colours of the twenty-four species of the genus *banksia* that will form the artistic basis of volume two of *The banksias*. This year Monash took the decision to publish volume two in 1988 which is especially appropriate in view of the uniquely Australian character of this botanical magnum opus. The University is pleased that the State Bank of Victoria will be associated with this venture as part of its contribution to the bicentennial year. I am delighted that volume two, unlike volume one, will be a wholly Australian production being edited, printed and bound in Melbourne.

This year, for the first time, the Vice-Chancellor's operating budget for the University exceeded 100 million dollars which reflects the increasing size and complexity of the Monash enterprise. Although this sizeable sum is less than adequate to meet our needs, it is especially pleasing that supplementation of the budget from the Monash University Foundation continues to grow — \$1.8 million in 1986 and \$2.7 million in 1987. The foundation has been designed to support the purposes of the University in perpetuity and I

believe that it will continue to give the University a much needed, albeit modest, element of autonomy. The Federal Government this year showed signs of a renewed commitment to research. We received \$2.57 million, a rise of 18.7 per cent, through the Australian Research Grants Scheme and \$3.12 million, a rise of 20 per cent, through the National Health and Medical Research Council. The University is fortunate in the support it receives from private benefactors. During the year I was visited by two donors who wished to remain anonymous, but were anxious to help postgraduate and other needy students, particularly from Asia. They handed me a cheque for \$100 000 to establish the Morgen Fund and indicated their intention of making donations of a similar magnitude each year.

During the year the vice-chancellors of the four Victorian Universities and the Victorian Conference of Principals of Colleges of Advanced Education issued a joint statement expressing concern about the lack of opportunity for public debate on major changes being proposed by the State Government for the new Victorian Certificate of Education. It was believed some of the changes proposed would lead to a decline in Science, English and foreign language skills, a shortage of well-qualified graduates to develop our technological and scientific base, and a lack of stimulus for bright young people anxious for the best possible tertiary education. The group arranged a number of seminars for teachers, business leaders and others so that the wider Victorian community would be alerted to the urgent need for an adequate opportunity to be given for full discussion of these matters.

A number of important structural changes were made during the year in the organisation for staff administration in the University. These changes were in line with the recommendation of council's review committee chaired by Sir James McNeill and involved the creation of three new separate branches, namely, personnel, industrial relations and staff development. The administrative responsibility for staff administration

Pictured after the Silver Jubilee graduation ceremony are honorary graduates, from left, Bishop Peter Hollingworth; Mr H M McKenzie; Prince Philip, Duke of Edinburgh; Sir John Young; Emeritus Professor Sir Edward Hughes and Sir James McNeill.



was transferred from the Comptroller to the Registrar's division although payroll and superannuation will remain the responsibility of the Comptroller. I believe the new arrangements will provide a sound basis for the administration of personnel matters for the coming decade. I am particularly pleased that the new structure recognises the importance of staff development and accordingly it has been given the status of a separate branch. Other important developments in the staffing area included the establishment of an equal opportunity advisory committee and the appointment of the University's first Equal Opportunity Coordinator.

After twenty-five years, the original telephone exchange (PABX system) had become so antiquated that it was no longer possible to maintain it economically and provide the level of service that the general public expect from a major institution. As a result, the decision was taken to replace the present electromechanical switch by a new computer based telephone exchange which will provide a dramatic improvement in communications both within the University and with the outside world. One of the benefits that flow from the new system is the potential to use it as a data switch for computer access.

As I pointed out in my report last year, the University will face the challenges of its second twenty-five years with virtually a completely new senior management team. My present deputy, Professor M I Logan, will succeed me as Vice-Chancellor and will be supported by Professor I J Polmear as the new Deputy Vice-Chancellor. The new Comptroller, Mr P B Wade, assumed his appointment on 1 January and the new Registrar, Mr A L Pritchard took up his post in March. This is an accomplished senior management team which both preserves the corporate knowledge of Monash through its Vice-Chancellor and Deputy Vice-Chancellor and at the same time brings a new body of knowledge and experience with its new Registrar and Comptroller.

As this is the last time I shall write for the University's Annual Report I would like to thank wholeheartedly all those friends and colleagues who have made my task at Monash during the past ten years so totally absorbing on the one hand and enjoyable on the other. I have not the slightest doubt that, in the year 2061 when Monash will be celebrating its centenary, it will enjoy the reputation of being one of the great universities of the Commonwealth.

DEVELOPMENT AND ADMINISTRATION

Site and buildings

In 1986, construction projects completed included alterations to Medical 'A' Block — stage 3, and alterations to the sports amenities for the Students' Union.

Projects which commenced during the year or earlier with completion anticipated in 1987 include the new Multidiscipline Centre, extensions and alterations to the Alexander Theatre, construction of the environmental fluid mechanics laboratory for Mechanical Engineering, and the relocation of Buildings Branch administration and Central Services.

Funds for minor building works, site works and services were applied principally to the treatment of asbestos, improvements to ventilation system — anatomy and fume cupboard modifications, with contributions to the Multidiscipline Centre and Medical 'A' Block — stage 3.

Legislation

One new and four amending statutes and forty-six new or amending regulations were made in 1986.

The new statute approved by the Governor in Council formally established the Monash Association of Graduate Students.

New regulations included the creation of the Morgen Fund, to administer a substantial gift, which is likely to be repeated annually, to provide long term low interest loans to postgraduate students with a preference being given to students from Asia. The new degree of Master of Biotechnology was also established by regulation during the year.

University publishing

The Monash University Publications Committee met on five occasions during 1986. It considered ten requests for financial assistance towards the publication of works by Monash authors, agreeing to support seven of them. The total funds thereby committed came to \$14 472. Actual payments made in 1986 (including \$17 732 in commitments from previous years) amounted to \$22 512. During the year there were sixteen volumes

published with the assistance of the committee.

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.

Safety

General safety improvements in 1986 were reflected in the reduced number of lost time injuries, down from 195 in 1985 to eighty in 1986, a drop in the number of road accidents from eight to three, and fewer calls for the services of the emergency vehicle — forty in 1985 compared with thirty-four in 1986.

An occupational health and safety policy developed by the Safety Committee was adopted by council after exhaustive consultation and review.

Asbestos was removed from several locations throughout the University in accordance with the on-going asbestos management program.

Reviews in response to statutory requirements included fume cupboard installations, emergencies planning and procedures and the identification, storage and handling of dangerous and hazardous substances.

The first employee safety representatives in conformity with the provisions of the 1985 *Occupational Health and Safety Act* were nominated at the end of the year.

The emphasis on proper radiation safety training has been maintained with lectures and demonstrations to research students and staff including those in the downtown medical schools. The acquisition of a multichannel analyser and microcomputer has increased the Radiation Protection Officer's personal monitoring capacity and this has been reflected in the continuing improvement in the control of radioactive contamination. In 1986 there were 178 thyroid monitoring measurements of which sixty-five showed detectable radioiodine in the thyroid but all were well within the acceptable level.

STAFF

The recruitment of staff in 1986 continued at the low level of previous years. Under current economic conditions, mobility of all staff is restricted.

Over the years regular part-time staff, referred to in this University as fractional staff, have become an established part of the University's staffing pattern. Figures in this

report are given in terms of full-time equivalent staff, ie, including fractional staff rather than full-time staff only.

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 1986, was:

	Professor/dean	Reader/ associate professor	Senior lecturer	Lecturer	Principal tutor	Senior tutor	Tutor	Total
Arts	20	23	85	37	1	11	31	208
ECOPS	12	10	39	21	2	7	34	125
Education	4	4	33	9	1	4	3	58
Engineering	9	19	37	9	—	8	—	82
Law	6	7	23	12	—	9	2	59
Medicine	19	20	65	25	1	22	1	153
Science	20	36	64	24	—	6	14	164
Other	—	2	—	4	—	—	—	6
Total	90	121	346	141	5	67	85	855

The recruitment pattern of teaching staff in 1986 was:

	Continuing appointment	Fixed- term	Short-term and temporary
Professors	8	—	—
Associate professors	1	1	1
Senior lecturers	3	3	5
Lecturers	12	8	19

as well as twenty-four senior tutors and forty-seven tutors, many employed at a fraction of full time, who took up their appointment in 1986. A number of professorial appointments were made during the year. Chairs filled were those of Professor J W Freebairn (Centre of Policy Studies), Professor M T W Hearn (Biochemistry), Professor J S Kahn (Anthropology), Professor M L King (Econometrics), Professor J J McNeil (Social and Preventive Medicine), Professor B Nelson (French), Professor P E O'Brien (Surgery), and Professor E G Westaway (Personal Chair, Microbiology). Dr J R Anderson (Honorary

Chair, Chemistry), Mr A Baklien (Industrial Chemistry), Dr S M Cordner (Forensic Medicine), Dr L M Goldschlager (Computer Science), Professor J A Hay (Dean, Arts), Dr G S Lister (Earth Sciences), Associate Professor M E Poole (Education), and Professor M L Wahlqvist (Medicine) were appointed during 1986 and will take up their chairs during 1987.

Those leaving the University in the year due to resignation, retirement, or expiry of fixed- or short-term appointments were:

	Continuing	Fixed- term	Short-term and temporary
Professors	12	—	—
Readers	3	—	—
Associate professors	1	—	—
Senior lecturers	10	—	3
Lecturers	4	4	7

as well as twenty-two senior tutors and thirty tutors. Included amongst those who resigned during 1986 were Professor M J P Canny

Mr A L Pritchard who took up his post as Registrar in March this year.



The new Comptroller, Mr P B Wade, who assumed his appointment at the commencement of January this year.



(Botany), Professor E P Ellinger (Law), Professor D E A Giles (Econometrics), Professor F C Jackson (Philosophy), Professor C I Johnston (Medicine), and Professor R R Officer (Accounting and Finance).

Academic staff employed solely for research projects expressed in full-time equivalent staff, comprised 266 research fellows, officers, and assistants.

With a strength of 3 023 equivalent full-time staff at the end of April 1986, total staffing has not altered significantly from the 1985 total of 3 004, and remains at approximately the same level as for the past seven years.

The 1986 distribution of equivalent full-time staff over the various fields of activity was:

		Total	
Teaching and research			
Teaching staff	944		
Support staff	683	1 627	
Research			
Academic staff	266		
Support staff	84	350	
Library		187	

Computing	64
Other academic services	51
Student services	21
Central administration	225
Buildings, grounds, cleaning and central services	237
Continuing education	9
Independent operations — University Union, Bookshop, etc.	252

The University records with regret the deaths of Mr S F Kwan, Mrs D M McGowan, Professor C Skinner, and Dr J K Yandell.

At the end of 1986, the title Emeritus Professor was conferred on five retiring professors: Professor H C Bolton, Professor P Boss, Professor J D Legge, Professor R F E Van der Borgh, and Professor K C Westfold. The same title was conferred on the University's Deputy Chancellor, Dr J E Isaac, who formerly held a chair of Economics.

The University remains within the CTEC 7 per cent limit for staff undertaking outside studies programs.

Rounding errors may apply to the above figures.

ACADEMIC DEVELOPMENTS

Degrees and diplomas conferred (as at 31 December 1986)

The following degrees and diplomas were conferred by the University at graduation ceremonies in 1986, the final column indicating the total number of degrees and diplomas awarded since the foundation of the University.

Degrees

	Male	Female	Total 1986	Total 1961-86
Bachelor of Arts	127	384	511	10 443
Bachelor of Arts with Honours	38	80	118	1 733
Bachelor of Social Work	7	23	30	179
Bachelor of Social Work with Honours	—	7	7	182
Master of Arts	6	15	21	397
Master of Librarianship	3	2	5	38
Master of Social Work	1	1	2	16
Bachelor of Economics	100	119	219	6 321
Bachelor of Economics with Honours	13	7	20	585
Master of Administration	32	6	38	556
Master of Economics	13	1	14	194
Bachelor of Education	26	23	49	1 731
Bachelor of Special Education	—	15	15	240
Master of Education	5	8	13	430
Master of Educational Studies	33	36	69	458
Bachelor of Engineering	104	12	116	1 337
Bachelor of Engineering with Honours	136	8	144	1 615
Master of Engineering Science	26	2	28	359
Bachelor of Jurisprudence	11	5	16	1 095
Bachelor of Laws	128	96	224	2 935
Bachelor of Laws with Honours	9	11	20	220
Master of Laws	12	5	17	192
Bachelor of Medical Science	—	—	—	16
Bachelor of Medical Science with Honours	5	3	8	163
Bachelor of Medicine, Bachelor of Surgery	70	43	113	2 075
Bachelor of Medicine, Bachelor of Surgery with Honours	21	18	39	648
Master of Psychological Medicine	1	—	—	4
Master of Public Health	1	—	1	4
Master of Surgery	—	—	—	3
Bachelor of Science	219	163	382	4 987
Bachelor of Science with Honours	113	87	200	2 964
Master of Environmental Science	18	5	23	177
Master of Science	8	7	15	369

Doctor of Philosophy — Arts	9	11	20	252
Economics	2	—	2	40
Education	3	4	7	122
Engineering	8	—	8	270
Law	1	1	2	25
Medicine	5	2	7	123
Science	42	16	58	872
Doctor of Engineering	—	—	—	1
Doctor of Letters	—	—	—	1
Doctor of Medicine	2	—	2	37
Doctor of Science	2	—	2	12
Honorary Master of Science	1	—	1	5
Honorary Doctor of Letters	—	—	—	10
Honorary Doctor of Economics	—	—	—	2
Honorary Doctor of Engineering	1	—	1	10
Honorary Doctor of Laws	1	—	1	39
Honorary Doctor of Medicine	—	—	—	5
Honorary Doctor of Science	1	—	1	13
Total degrees	1 364	1 226	2 590	44 487

Diplomas

	Male	Female	Total 1986	Total 1961–86
Diploma in Commercial Law	2	2	4	39
Diploma in Computer Science	—	—	—	25
Diploma in Education	95	174	269	7 161
Diploma in Educational Psychology	11	20	31	308
Diploma in Engineering Geology	—	—	—	9
Diploma in English	1	—	1	40
Diploma in Family Law	—	1	1	18
Diploma in General and Comparative Literature	—	—	—	1
Diploma in Immunology	2	—	2	17
Diploma in International and Comparative Law	—	1	1	3
Diploma in Japanese Studies	—	—	—	9
Diploma in Librarianship	1	3	4	33
Diploma in Linguistics	—	—	—	4
Diploma in Materials Engineering	—	—	—	2
Diploma in Microbiology	—	—	—	5
Diploma in Migrant Studies	—	—	—	22
Diploma in Operations Research	5	4	9	52
Diploma in Slavic Languages	—	—	—	1
Diploma in Taxation Law	6	1	7	43
Total diplomas	123	206	329	7 792

1986 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.

<i>Group (a)</i>	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Arts	83	87	86	87	84	84	88	87	84	87	89
Economics and Politics	75	83	85	82	83	80	81	82	81	84	78
Law	91	90	93	97	92	95	90	95	95	95	95
Science	85	80	83	86	87	88	91	92	93	93	95
<i>Group (b)</i>											
Diploma in Education*	95	95	98	87	93	95	93	95	99	98	98
Engineering	67	71	73	74	75	83	80	84	87	89	80
Medicine	99	95	95	88	92	92	92	94	90	98	91

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.

STUDENT ENROLMENT

The net total undergraduate population increased from 10 077 in the previous year to 10 237. Higher degree enrolments increased from 2 296 to 2 379 and total enrolments of all students from 13 586 to 13 839. Full details of enrolments are given in the table below.

Of the total of 13 839 students, 1 729 (12.5 per cent of the total) were from overseas as follows: *Oceania* — Papua New Guinea 8, Fiji 12, New Zealand 11, Tonga 1; *Africa* — Ghana 4, Kenya 2, Malawi 2, Mauritius 4, Nigeria 3, Tanzania 1, Uganda 3, other Africa 1;

America — Canada 11, USA 13, West Indies 2, South America 1; *Asia* — Brunei 9, Hong Kong 134, India 4, Malaysia 1 223, Singapore 79, Sri Lanka 29, Israel 1, Bangladesh 7, Burma 1, China 20, Indonesia 55, Japan 17, Korea 12, Pakistan 3, Philippines 1, Taiwan 3, Thailand 15, Vietnam 1; *Europe* — UK and Eire 13, France 2, Germany 6, Italy 1, Malta 1, Netherlands 1, Nordic Lands 2, other Europe 10. A total of 997 males and 732 females.

Net enrolments by degree/faculty 1986 (as at 30 April)

Faculty and year	Full-time			Part-time			Total		
	M	F	T	M	F	T	M	F	T
Higher degree									
Higher doctorate	1	0	1	6	0	6	7	0	7
PhD	323	167	490	114	64	178	437	231	668
Masters	227	144	371	799	534	1 333	1 026	678	1 704
Total	551	311	862	919	598	1 517	1 470	909	2 379
Master preliminary	15	7	22	49	42	91	64	49	113
Postgraduate diplomas									
Arts:									
DipEngl	0	0	0	0	5	5	0	5	5
DipGCL	1	0	1	0	0	0	1	0	1
DipJapStud	0	0	0	0	3	3	0	3	3
DipApSoc	0	7	7	1	5	6	1	12	13
DipLibr	2	1	3	1	6	7	3	7	10
Economics & Politics:									
DipOpsRes	5	1	6	6	4	10	11	5	16
Education:									
DipEd	76	162	238	22	48	70	98	210	308
DipEdPsych	5	15	20	15	22	37	20	37	57
Engineering:									
DipMatEng	0	0	0	3	0	3	3	0	3
Law:									
DipComLaw	1	0	1	14	3	17	15	3	18
DipInt & ComplLaw	1	0	1	1	0	1	2	0	2
DipTaxLaw	3	1	4	15	10	25	18	11	29
DipFamLaw	0	0	0	5	3	8	5	3	8
Medicine:									
DipImm	1	1	2	0	1	1	1	2	3
Science:									
DipEnvSt	3	4	7	5	2	7	8	6	14
Total	98	192	290	88	112	200	186	304	490

Postgraduate bachelors degrees

Education:

BEd	1	6	7	85	126	211	86	132	218
BSpecEd	4	11	15	16	103	119	20	114	134
Total	5	17	22	101	229	330	106	246	352

Faculty and year	Full-time			Part-time			Total		
	M	F	T	M	F	T	M	F	T

Bachelor degrees

Arts:

BA	I	269	553	822	49	222	271	318	775	1 093
	II	192	425	617	66	177	243	258	602	860
	III	188	416	604	101	289	390	289	705	994
	IV	35	67	102	12	33	45	47	100	147
	Sub-total	684	1 461	2 145	228	721	949	912	2 182	3 094
BSocWk	III	5	37	42	0	0	0	5	37	42
	IV	1	38	39	0	4	4	1	42	43
	Sub-total	6	75	81	0	4	4	6	79	85

Economics and Politics:

BEc	I	234	187	421	31	14	45	265	201	466
	II	194	172	366	26	18	44	220	190	410
	III	242	199	441	144	80	224	386	279	665
	IV	10	7	17	0	0	0	10	7	17
	Sub-total	680	565	1 245	201	112	313	881	677	1 558

Economics & Politics/
Engineering

BEc/BE	I	14	1	15	0	0	0	14	1	15
	II	22	0	22	0	0	0	22	0	22
	Sub-total	36	1	37	0	0	0	36	0	37

Engineering:

BE	I	235	28	263	0	1	1	235	29	264
	II	182	29	211	5	0	5	187	29	216
	III	224	25	249	5	0	5	229	25	254
	IV	193	17	210	27	1	28	220	18	238
	Sub-total	834	99	933	37	2	39	871	101	972

Law:

LLB	I	0	0	0	1	2	3	1	2	3
	II	0	1	1	7	2	9	7	3	10
	III	18	9	27	7	11	18	25	20	45
	IV	39	27	66	23	24	47	62	51	113
	Sub-total	57	37	94	38	39	77	95	76	171
BJuris/LLB	I	4	7	11	0	1	1	4	8	12
	II	7	12	19	3	1	4	10	13	23
	III	9	16	25	2	0	2	11	16	27
	IV	24	13	37	8	8	16	32	21	53
	Sub-total	44	48	92	13	10	23	57	58	115

Law/Arts:											
BA/LLB		I	23	39	62	0	0	0	23	39	62
		II	53	72	125	2	2	4	55	74	129
		III	38	69	107	4	6	10	42	75	117
		IV	75	96	171	22	22	44	97	118	215
Sub-total			189	276	465	28	30	58	217	306	523
Law/Economics & Politics:											
BEc/LLB		I	48	44	92	0	0	0	48	44	92
		II	60	34	94	1	0	1	61	34	95
		III	82	46	128	3	2	5	85	48	133
		IV	71	32	103	22	4	26	93	36	129
Sub-total			261	156	417	26	6	32	287	162	449
Law/Science:											
BSc/LLB		I	10	5	15	0	0	0	10	5	15
		II	19	13	32	0	0	0	19	13	32
		III	20	5	25	0	0	0	20	5	25
		IV	17	23	40	5	3	8	22	26	48
Sub-total			66	46	112	5	3	8	71	49	120
Medicine:											
MB, BS		I	87	53	140	0	0	0	87	53	140
		II	79	66	145	0	0	0	79	66	145
		III	80	61	141	0	0	0	80	61	141
		IV	83	60	143	0	0	0	83	60	143
		V	97	57	154	0	0	0	97	57	154
		VI	86	61	147	0	0	0	86	61	147
Sub-total			512	358	870	0	0	0	512	358	870
BMedSc			2	4	6	0	0	0	2	4	6
Sub-total			2	4	6	0	0	0	2	4	6
Science:											
BSc		I	329	280	609	12	7	19	341	287	628
		II	294	237	531	35	22	57	329	259	588
		III	237	213	450	92	72	164	329	285	614
		IV	90	76	166	5	3	8	95	79	174
Sub-total			950	806	1 756	144	104	248	1 094	910	2 004
Science/Engineering:											
BSc/BE		I	56	5	61	0	0	0	56	5	61
		II	49	7	56	0	1	1	49	8	57
		III	82	6	88	1	0	1	83	6	89
		IV	21	5	26	0	0	0	21	5	26
Sub-total			208	23	231	1	1	2	209	24	233
Total			4 529	3 955	8 484	721	1 032	1 753	5 250	4 987	10 237
Not for degree			6	11	17	102	149	251	108	160	268
Total other than higher degree			4 653	4 182	8 835	1 061	1 564	2 625	5 714	5 746	11 460
Total net enrolments			5 204	4 493	9 697	1 980	2 162	4 142	7 184	6 655	13 839

Faculty of Arts

Dean: Professor J D Legge MA *Melb.* DPhil *Oxon.*

Student enrolments

The faculty increased its student load in 1986, partly by accepting a small increase in its target figure and partly through taking an additional seventeen students funded by the State Government under its Youth Guarantee Scheme. A total load of 2 917 was made up of 474 HD and 2 443 OTHD EFTS.

Finances of the faculty

Reference has been made in earlier reports to the financial difficulties faced by the faculty as a result of the level funding imposed on the University for the course of the current triennium. These have continued to affect us. In particular, the faculty has been concerned for a number of years at the small — and decreasing — proportion of the total budget that has been available for non-staffing expenditure, and has sought to redeploy resources so as to increase the proportion. Because of the inescapable costs of promotions and increments, level funding has, in fact, meant a significant real cut in funds and has made it more difficult to implement these plans. Once again we have relied heavily on salary savings, the result in particular of vacancies in four of the faculty's chairs: Sociology, Social Work, Philosophy and Geography.

While salary savings have enabled the faculty to survive and provide an improved maintenance budget for 1987, the existence of so many chair vacancies is not necessarily conducive of the health of the faculty and it is a matter of urgency that consideration be given to filling them. In 1986 the faculty decided, in future, to institute a regular review procedure whenever a chair falls vacant and steps have already been taken to institute such a review for the chair of Sociology.

The faculty's consideration of existing vacancies, as well as of possible future developments, has been aided by a committee established by chairmen in 1984. In 1986 this committee, the Future of the Faculty Com-

mittee, was made a standing committee of faculty board.

A development with important financial implications for the faculty was the decision concerning the conditions of appointment of tutors and senior tutors, handed down by the Academic Conciliation and Arbitration Board early in the year. Whereas in the past it has been the policy of the University to regard these as essentially trainee positions, and to limit the tenure of them to four years, with a possible extension to five years in exceptional circumstances, the board determined that tutors must be allowed to re-apply for these positions and must be re-appointed if they are the best qualified applicants. Only after ten years is it permissible for the University not to re-appoint such applicants. Increments and promotions over a ten-year period within the tutor and senior tutor scales will increase significantly the costs of appointment to these grades and may involve a reduction in the number of such positions.

Multidiscipline building

During the course of the year members of the faculty have watched with interest the erection of the Multidiscipline building, the first building project undertaken on this part of the campus since the completion of the south wing of the Menzies building in 1975. The accommodation problems of the faculty will be greatly assisted, though not entirely removed, by the completion of the new building. The University's art gallery will form a central part of the building and the Department of Visual Arts will move into accommodation adjacent to the gallery. The Department of Social Work will move to the area vacated by Visual Arts and the Monash Orientation Scheme for Aboriginals, in turn, will take up part of the former Social Work area. The additional space made available by these musical chairs will enable accommodation to be provided for a greater number of graduate students, many of whom have no space at all on campus at the moment.

Staff

Professor W H Scott, foundation professor of Sociology, retired in March. He was succeeded as chairman of the Department of Anthropology and Sociology by Professor J S Kahn, who arrived in February to take up the chair of Anthropology. Professor F C Jackson resigned from his chair of Philosophy in order to take up the chair of Philosophy in the Research School of Social Sciences at the ANU. Professor Peter Boss, foundation professor of Social Work, retired at the end of the year.

Professor Brian Nelson took up the chair of French in August and in September the departments of French and Spanish amalgamated to form a Romance Languages department. This administrative change provided a framework within which the faculty has been able to move to introduce the teaching of a minor sequence in Italian. Mr J. Gioscio of the James Cook University of North Queensland has been appointed to the Italian lectureship.

The faculty was shocked to learn, in December, of the death of Professor Cyril Skinner while on leave in Malaysia. Professor Skinner was the foundation professor of Indonesian and Malay. He was a distinguished scholar whose recent work had taken him into a study of Thai sources. He had recently been elected to the chairmanship of the Centre of Southeast Asian Studies.

Professor John Hay, professor of English at the University of Western Australia, was appointed to succeed Professor J D Legge, who retired at the end of the year, as dean of the Faculty of Arts.

Dr J D Rickard (History) was promoted to reader and Dr C W Nettelbeck (French) to associate professor. Dr J M Powell (Geography) completed eight continuous years on the National Council of the Institute of Australian Geographers, including terms as journal editor, vice-president and president. In August Professor Legge was appointed, as an executive member, to the Victorian Curriculum and Assessment Board. Professor

Graeme Davison, who continued to serve as chairman of the Historic Buildings Council, became president of the Australian Historical Association. Two other members of the Department of History, Mr B A Knox and Dr D Garrioch, have been elected to the executive of the association. Dr John Gregory (Visual Arts) was elected president of the Art Association of Australia and Jenefer Duncan and Robert Nelson (Visual Arts) were elected to the committee of the association. Mr Leslie Fleming, a foundation member of the Department of History and Mr J Morgan, also of History, retired at the end of the year.

Undergraduate studies

In addition to the plans, already referred to, for the introduction of a minor sequence in Italian, the faculty has also approved, for 1987, an interdisciplinary minor in Migrant and Intercultural Studies.

The Department of Slavic Languages was assisted by the appointment of Dr E N Gordeev of the University of Leningrad. Dr Gordeev's appointment was made under the Soviet-Australian Cultural Agreement and, though located at Monash, he also taught at the Department of Russian at the University of Melbourne.

A third year student of the Department of Slavic Languages was awarded a Yugoslav government fellowship for study at Novi Sad University from October 1986 to February 1987. Four students of the Department of German received DAAD scholarships to attend a 'Winter-school' at Freiburg University, two won semester-scholarships and one a scholarship for a full year. Two other students received scholarships from the Goethe Institute for special courses in Germany and two former students were selected for teaching assistantships at German high schools.

Research and graduate studies

Four hundred and sixty-one students were enrolled as postgraduates in 1986. During

the year twenty-six students completed the requirements for the degree of MA, five for the degree of MLib and two for the degree of MSocWk. Twenty-two students enrolled in Arts departments completed the requirements for the degree of PhD and fourteen qualified for the award of diplomas in Arts.

The interdisciplinary centres of the faculty continued to provide an opportunity for interdepartmental cooperation in a number of areas. The Centre for Migrant and Intercultural Studies embarked on two commissioned research projects, one on multiculturalism for the Review of Migrant Programs and Services and one on Australia's linguistic and cultural futures for the Commission for the Future and the Ministerial Advisory Committee on Multicultural and Migrant Education. In addition, Dr C A Maher and Mr J McKay of the Department of Geography completed a final report of a study of internal migration in Australia, sponsored and published by the Commonwealth Department of Immigration and Ethnic Affairs.

Dr J M Powell of the Department of Geography was engaged as a consultant by the Victorian Government to write a 'critical history' of water management in the State. Dr Patrick De Dekker of the same department edited, in conjunction with Professor W D Williams of the University of Adelaide, *Limnology in Australia*, which received the 1986 Whitley Book Award from the Royal Zoological Society of New South Wales as the best produced text of the year.

Dr David Roberts and Dr Philip Thomson of the Department of German gave papers at the International Brecht Symposium in Hong Kong, Dr E Wilkinson at an international seminar on relational grammar in America and Dr Veit at conferences in Heidelberg, Salzburg, Zurich and Karlsruhe.

Exhibitions, conferences, the creative and performing arts

Two special exhibitions were mounted by the Monash University Gallery as its contribution

to the jubilee celebrations: *The Monash University Collection reviewed — paintings and Making Monash — a twenty-five year pictorial history*. In addition, *New Classicism?* covered the work of ten Melbourne architects and *The lens and eye* displayed photographs from the City of Waverley Art Collection.

The Department of Classical Studies, as its contribution to the jubilee celebrations, mounted an exhibition on *The history of the classical text*.

The Department of Music presented or cosponsored ten lecture—recitals and concerts by visiting musicians and dancers from India, as well as other non-Western musical presentations from China, Malaysia and the Ukraine.

For the fourth year in succession, the Department of Indonesian and Malay staged an Indonesian language play — *Kisah Perjuangan Suku Naga (The struggle of the Naga tribe)*. All five performances were given to full houses — in large measure because of support from secondary schools and the resident Indonesian community.

Four major conferences were held during the year. In May the Department of Slavic Languages organised a Serbo-Croatian colloquium, the first of its kind to be held in Australia. In June the Centre for Southeast Asian Studies held a seminar on the politics of middle class Indonesia, which attracted a number of international and interstate visitors, including Dr D Lev of the University of Washington, Dr R W Liddle of Ohio State University and Aswab Mahasin and Abdurachman Wahid from Indonesia. In September the Department of Music hosted a combined analysis symposium and honours and postgraduate students' conference of the Musicological Society of Australia. In November the Centre for Migrant and Intercultural Studies held a national conference on *Prejudice in the public arena* which addressed the situations of Aboriginal Australians and Australians of migrant background.

In December, the ground floor rooms of the Menzies building (rooms SGO1, 2, 3 and 4) were renamed the Manton rooms in mem-

Professor John Legge, Dean of the Faculty of Arts (left), and Professor Merle Ricklefs with a copy of the commemorative volume *Nineteenth and Twentieth Century Indonesia: Essays in Honour of Professor J D Legge* compiled to mark Professor Legge's impending retirement.



ory of Professor G R Manton, dean of the faculty from 1966 to 1977. Professor Manton had planned these rooms as multipurpose areas but, in particular, as a place where it would be possible to stage intimate theatre. The rooms have been used frequently for that purpose. As a result of an appeal, it was possible to curtain the walls of the room and to provide flexible lighting for theatrical purposes. The theatrical possibilities of the University will be further extended in the design of the Multidiscipline building for an open air theatre on the northern side of the building.

Technological developments

Earlier reports have mentioned the introduction of personal computing equipment and the provision of training and back-up services in the faculty. It has now been decided to place the support services on a co-

herent footing by providing a part-time director of computing services within the Language Centre. The functions of the Language Centre have changed over the years and the new arrangements will enable the faculty to consolidate its technical support services.

Visitors

Visitors to the faculty included Mrs Elizabeth Craik, University of St Andrews (Classical Studies), Professor Wang Pinxian, Shanghai University and Professor W M Last, University of Manitoba (Geography), Professor Dr W Besch, University of Bonn, Professor Dr K Ehlich, University of Dortmund and Dr Wolfgang Benz, University of Munich (German), Professor M Orzechowski, University of Warsaw and Mr M Petrovic, Minister of Education of the Serbian Republic (Slavic Languages) and Professor Colin Pritchard, University of Southampton (Social Work).

Faculty of Economics and Politics

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

Significant developments occurred in the graduate management education program of the faculty during the year. The Graduate School of Management, with Professor AHM Fels as its director, devoted considerable attention to the implementation of the recommendations arising from the review of the program implemented in the previous year. In association with this, the name of the Master of Administration degree was changed to the more recognisable one of Master of Business Administration (MBA). The number of applicants for entry and the number admitted has increased. New staff appointments have been made in the fields of industrial relations and organisational behaviour and a greater emphasis is being placed on the role of computers in management.

In response to a change in the policy of the Commonwealth Government, the faculty initiated a program of admitting overseas students to certain of its courses for payment of a full fee. As a result of the imposition by the Commonwealth Government of quotas on the administration of overseas students for a subsidised fee, the number of such students admitted to the Bachelor of Economics degree has had to be substantially reduced. The Commonwealth Government is, however, also encouraging tertiary institutions to take additional overseas students for payment of a full fee. Although little time was available to make arrangements for such admissions in 1986, a small number of overseas students were admitted to the Bachelor of Economics degree for a full fee. Council has also approved a scheme to admit full fee paying overseas students to the MBA degree in 1987.

The Higher School Certificate selection score for admission of Australian resident students to the Bachelor of Economics degree remained steady at 295. In the circumstances of a substantially increased first year intake and of the reduction in the number of overseas students as a result of the new quotas, this was indicative of a further increase in the demand for places.

The faculty gave close attention to the way

in which the new Victorian Certificate of Education is being planned to replace the Higher School Certificate. We are particularly concerned that the subjects for the new certificate should be a suitable preparation for entry to this faculty and that external assessment in such subjects should be retained.

The faculty hosted the annual Australian Conference of Economists in August which was attended by several hundred economists and was generally regarded as among the most successful to have been held.

Staff

Dr M L King was appointed to replace Professor D E A Giles as Professor of Econometrics. This department has developed a high international reputation and it was therefore pleasing to be able to appoint to the chair one of the scholars who has contributed considerably to the high standard of econometrics at Monash. The department was the host to Professor P C B Phillips of Yale University as a Monash University visiting professor for 1986. Emeritus Professor D C Corbett, who has played an important role in the development of the teaching of public administration in the graduate program, was made a fellow of the faculty. Mr R L Brown and Mr L J Nethercott were appointed associate professors in the Department of Accounting and Finance.

Visitors

Visitors to the faculty included: *Accounting and Finance* — Professor D Hatherley (Glasgow College of Technology); *Administrative Studies* — Emeritus Professor D C Corbett (Flinders University), Professor Y T Kee (University of Manitoba), Professor Wang Zheng Xian (Zhongshan University) and Professor Pan Xiao-Ru (Zhongshan University); *Econometrics and Operation Research* — Professor W A Barnett (University of Texas at

Professor John McCarty (Economic History), Dr Marion Aveling (History), Professor Graeme Davison (History) and Ms Ailsa McLeary (Economic History), who have played key roles in the creation of *Australians — a historical library*, a ten volume national history to be published through 1987 and 1988.



Austin), Mr R Harrison (University of Canterbury), Professor A C Harvey (London School of Economics), Professor T W Kinal (State University of New York at Albany), Mr B P M McCabe (University of Leeds), Professor P C B Phillips (Yale University), Mr R J Smith (University of Manchester), Mr A R Tremayne (University of York), Dr H G Stanton (University of Melbourne) and Dr J Wilson (University of Melbourne); *Economics* — Professor D Mueller (University of Maryland) and Professor R Bird (University of Toronto); *Centre of Policy Studies* — Dr A Dilnot (Institute of Fiscal Studies), Professor A Dixit (Princeton University), Professor P Hartley (Princeton University and Rice University), Professor A Khan (Cornell University), Professor C Oster (Indiana University) and Professor C Walsh (University of Adelaide). A large number of other distinguished academic visitors presented seminars in each of the departments of the faculty.

Centre of Policy Studies

Major projects undertaken by the centre in 1986 were: 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 and assessment of alternative strategies; analysis of performance of the Australian industrial relations system and of alternative systems; evaluation of workers' compensation and third party insurance programs; evaluation of transport policies in Australia.

Funds for these and other projects were roughly half from a Special Research Grant (from what was formerly the Commonwealth Research Centre of Excellence Scheme) from the Federal Government and half from research grants actively sought and received by the centre from private sources. In addition to funding staff and facilities within the centre, these funds have been used to assist the research activities of other members of the faculty and some other researchers in Australia.

During 1986 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.

Faculty of Education

**Dean: Professor Peter J Fensham AM MSc Melb. PhD Brist. and Cantab. DipEd
FRACI FASSA ABPsS AAPsS**

Looking back on 1986 I am struck by the fact that it was a year in which a number of new beginnings occurred in the faculty. Last year I reported that a reorganisation of the academic staff was achieved in 1985, a major effort was put into medium and long term planning and several senior members of the faculty retired. This year saw the beginning of this new organisational arrangement in action, and I am pleased to report that a number of initiatives concerning teaching are already emerging as these sets of colleagues meet regularly and plan how they will meet the needs of the students in our six degree and diploma programs. The new groups have been developing new awareness of the problems facing the faculty as recurrent funds and hence staff continue to decline. It is to be hoped that this may also lead to cooperative ventures and sharing of tasks that were not easy to consider under the previous organisation.

A new faculty secretary (now assistant registrar), Mrs Sue Aspinall, joined us in January 1986 and she has begun to assist us to introduce new procedures to facilitate our complex administrative tasks, many of which stem from our very high proportion of part-time students in degree programs that involve some individual work and choice from a very wide range of subjects.

I, and the whole faculty, have also been very conscious this year of the appointment of a new professor to replace Professor Musgrave, one of the retirees in 1985. After the lengthy procedures associated with appointments at this level, Associate Professor Millicent Poole from Macquarie University was appointed. She is a very distinguished scholar whose work on youth and multiculturalism in Australia is well known both here and overseas. She has already been the president of the Australian Association for Research in Education (three other Monash professors have also held this national office), and is the editor of the *Australian Journal of Education*. We are delighted that her appointment improves slightly the proportion of women professors at Monash.

Teaching

One example of a new beginning in teaching must suffice to illustrate this important side of the faculty's work. This is associated with the population of student graduates who study for the Diploma in Education and who occupy our building during the University's more regular hours of 9.00-4.30. Two previously separate components from the educational psychologists and from the Principles of Teaching group have now been combined to provide an integrated approach to teaching and learning. This innovation has been very much welcomed by students.

Students

Enrolments in 1986 were again such that our overall target was achieved. There was a higher than usual withdrawal from the Diploma in Education course early in the year. We have expressed our concern to the Ministry of Education that public announcements about reductions in numbers of teachers will seriously deter students from enrolling in teacher training courses. It is the government school sector that will be the loser. Its concerns about hard-to-staff schools, the healthy recruitment into non-government schools, and the continuing priority given to the continuing shortage in a number of subject fields would present a more balanced view to potential recruits.

Turning now to some of that other population of students who occupy our building from 4.30-7.30 pm, the Bachelor of Education program maintains its attraction to a good blend of graduate and non-graduate teachers. Fifty-five persons graduated with the Master of Educational Studies degree — now firmly established as our largest program and as an effective means of mid-career professional development for many teachers.

During 1986 an evaluative study, *Higher degrees in education: Monash University 1969-1985*, supported by CTEC, was completed and widely discussed in the faculty. It indi-

cated, in general, a high level of satisfaction about their studies in the faculty among the 785 higher degree graduates (100 PhDs, 166 MEd (major thesis), 211 MEd (course work and minor thesis) and 308 MEdSt (course work and project) since Monash began these programs in this faculty. The study followed these graduates (nearly all part-time and in the midst of careers) into their niches in society and also gathered the views about these advanced qualifications of those who are their employers. A number of features of our programs are now under review as a result of this study, and those parts that are of relevance to external authorities are being drawn to their attention.

It was both interesting and pleasing to note that the original sex bias in favour of males in enrolments for these degrees has now been overcome.

Visitors and academic exchanges

For many years the faculty has made it a priority to ensure that there is a good flow of visiting scholars. I believe this is one of the secrets behind our emergence as the premier research faculty in Australia. The small fraction of our budget that goes on these measures has been an astonishingly good investment in terms of new ideas, cooperative projects, overseas contacts and reputation. In 1986 our own funds brought Professor Robert Gidney and his wife (both historians) from London, Ontario and Dr John Kirby (University of Newcastle) as visiting lecturers and our exchange scheme with the faculty at the University of Alberta in Edmonton began in this direction with Dr Tom Maguire and Dr Robert Carney. Dr Jeff Northfield and Professor Richard White travelled to Edmonton late in 1986 to complete our side of this very economical and productive exchange.

We also enjoyed for a longer period, Douglas Barnes from Leeds University who was the University visiting professor in the faculty — a most worthwhile Monash tradition to await every three years. He and his wife Dor-

othy, herself a well known figure in the teaching of English, were very involved in teaching and with a major research involvement of a number of faculty staff at Laverton High School. His presence at Monash was also another example of the academic link (recognised and assisted by British Council) that several staff at Monash have established with colleagues at Leeds.

Other visitors resident in the faculty in 1986 were Professor Len Cantor (University of Loughborough), Dr Jan Harding (Chelsea College, London), Dr Merrill Jackson (University of Tasmania), Professor Miriam Ben-Peretz (University of Haifa), Mrs M Rodriguez (University of the Philippines — Los Banos), Dr Roger Peddie (University of Auckland), Professor David Aspin (Kings College, University of London), Dr Jim Walker (University of Sydney), Dr Russell Cowie (University of Queensland), Dr John Baird (Melbourne CAE), Dr Lyn Joffe (NFER, England), Dr David Squires (King's College, London), Dr Stan Van Hooft (Victoria College), Dr Todd Rogers (University of British Columbia), Dr David Whitehead (London Institute of Education) and Dr Peter Jones (Swinburne Institute of Technology).

Research

A rather novel manifestation of the faculty's international standing in educational research was possible in April 1986 during the annual conference of the American Educational Research Association. Its venue of San Francisco was convenient for an unusually large Australian participation, and thirteen members of the faculty presented papers — a number of whom were invited to present plenary lectures or parts of major symposia. Forty participants (staff or former visitors to Monash) sat down for breakfast one morning and amongst them were a recent past president, the current president, and the president-elect of AFRA.

In addition to the program grant referred to below, four other staff have projects supported by ARGS. A number of others have

been supported by other sources — Drs Sullivan and Spaul who have been commissioned to write the history of the Queensland Teachers Union, Dr Bullivant published his report to the Human Rights Commission, *Getting a fair go*, which is based on seven case studies in Melbourne schools, Professor Selleck's work on the biography of Sir James Phillips Kay-Shuttleworth, initially funded by ARGS, has now attracted substantial support from the Spencer Foundation, an American trust the income of which is largely derived from individual reading and number kits that had quite a vogue in Australian schools in the 1960s and 70s. Numerous other examples could be cited.

Professor Richard Tisher was invited in 1986 by the Victorian Institute for Educational Research to give its prestigious John Smyth Memorial Lecture. This follows Richard Selleck and Richard White as the lecturer in 1982 and 1983 respectively, establishing a high profile for Monash research.

Two faculty strengths: science education and history of education

Sixteen years ago, the faculty had a number of fledgling science educators. In their enthusiasm they took the initiative for establishing a national research association (ASERA) to encourage research in this field. The association is now a very healthy one with centres all around Australia vying to host its annual meeting. The faculty now has very substantial strength in this field, not only nationally, but internationally, and it is appropriate that we now have the editorial and business responsibilities of the association's journal, *Research in Science Education* centred in the faculty. Two of the faculty's three post-doctoral fellows, Dr Margaret Brumby (later a staff member) and Dr Hanna Arzi have been in this field, and three of the Monash group late in 1986 learnt that they had been awarded a program grant by ARGS of \$108,000 for the next three years — a first for such an education project in Australia.

The third post-doctoral fellow, Dr Marjorie Theobald, is a historian working on aspects of women and girls and education. I have already referred to historical research by Professor Selleck and Drs Spaul and Sullivan. As a group, the historians in the faculty have been engaged for several years in very fruitful scholarly exchanges with Canadian scholars in Vancouver, Edmonton, Toronto and York. Exchanges both ways have occurred (several in 1986) and some joint projects have been very profitably undertaken.

Links with education systems: overseas and in Australia

The faculty's interest in, and contribution to, South East Asia's education systems quickened in 1986. Dr Floyd Ausburn, Dr Richard Gunstone, Professors White, Tisher and Fensham were all involved as consultants. Dr Rice spent his OSP in Thailand and Drs Hunt, Mellor and Zain'uddin continued their long standing interests in the region. For a number of years we have had a small but steady flow of doctoral students from Asia but the decision to levy an entry fee on these students, even if they gain university scholarships, seems almost certain to break off this valuable link. It was pleasing to have Dr Gerald Burke involved in a project in Samoa as our links with the Pacific countries have been very much weaker than with our Asian neighbours.

A number of members of the faculty continue to participate in the wider Victorian system of education. Dr Jeff Northfield, as well as local school involvement, has been chairman of the Westernport Regional Board and in 1986 his was a major responsibility, as these newly established bodies seek to establish operating procedures that will make sense of Victoria's commitment to devolution of educational authority and function. Dr Judith Chapman continues to serve as a key consultant and stimulant to Victorian school principals and Dr Lawrence Angus and Mr Laurence Ingvanson have been involved in evaluations of regional boards and the state

Three Monash education scholars (Ms Eleanor McCoy, Dr Ann Shorten and Ms Anne Feehan) have developed a computer-assisted learning course for history students at secondary school level. The authors are shown demonstrating the program, *Histobank: the 1930s depression*, while Professor Peter Fensham, Dean of the Faculty of Education, looks on.



inservice education program for computer education respectively. Dr Stewart Sykes served on the Integration Task Force of the State Board of Education, and I completed four years service on that body as a representative of tertiary education — a rather hot seat in a year when there was much debate and uncertainty about how university selection should or could occur under the new Victorian Certificate of Education in 1989.

The Monash Evaluative Studies group has been asked to extend their work for the Road Traffic Authority — a public authority that has a surprisingly large education program, and the Monash Mathematics Education Centre has been a source of support and stimulus to a number of curriculum developments and research in its field, for example, video materials (Dr D Blane and Dr P Jones) with a strong social orientation, and studies of gender participation in primary school classrooms (Dr G Leder and Ms I Leonard).

Conclusion

In earlier reports and in this one I have referred to the very substantial and continuing decline in staffing the faculty has been experiencing. Between 1981 and 1986 with more or less a constant load of students, the

faculty staffing fell from seventy-five to sixty-one EAS and total staff from 110 to eighty-nine. Part of our development plan was the suggestion that the faculty be granted a period of stability in staffing to reorganise its programs, some of which had been very badly affected by random resignations that were not replaced in order to meet the decline in the effective budget. The plan suggested as an alternative means of cost cutting for this stable period was savings that would accrue by making more junior appointments to replace the six or seven senior staff who are due to retire by 1990. In 1986, with the retirement of Mr Keith Hudson, a valued instructor in voice to generations of teachers and that of Mr Fyfield (and Dr Gilchrist at the end of 1985) the faculty advertised three lectureships as replacements for 1987. Just before final selection occurred the budget for 1987 was announced. All three appointments had to be cancelled with obvious effects on morale and the way in which the staff in this faculty view the University's planning procedures. No discussions of our proposal had occurred in nearly eighteen months.

The Faculty of Education at Monash is very highly regarded nationally and internationally. It is a lively place and I have tried to maintain its qualities. The task is getting harder.

Faculty of Engineering

**Dean: Professor L A Endersbee AO FTS BCE ME *Melb.* FIEAust. MAust.IMM
HonMEIC**

Student entry

Applications for entry to the faculty are increasing in number and improving in overall quality each year. There is particularly strong interest in the combined degree courses for BSc/BE. The commencing student quotas for the BE and BSc/BE courses in 1986 were increased, and the quota on the admission of overseas students was set at 15 per cent. The faculty is required to reduce the enrolments of overseas students in the BE course to the government imposed limit of 20 per cent overall within three years. Postgraduate enrolments across the faculty remained at about the same level as the previous year. The total number of undergraduate students in 1986 was 1 249; postgraduate students numbered 230, with total faculty enrolments of 1 479 including students in the combined courses: actual EFTS for 1986 was 1 114.

Undergraduate courses

A major development in the undergraduate courses in the past few years has been the introduction of combined degree courses of Engineering with Science, and Engineering with Economics. These combined courses are proving to be quite attractive to able students.

The five-year consecutive Science/Engineering programs are available in all branches of engineering except Civil Engineering. The highest demand is for the combination of Computer Science with Electrical and Computer Systems Engineering. This has led to the introduction of a quota in second year electrical engineering subjects, but it is hoped that arrangements can be made to increase staffing to allow an increase in the number of students in these programs.

The combined degree BE/BEc is available for students in Civil Engineering and Mechanical Engineering, and is operating well.

A six-year combined course in Engineering/Law is now available for students in both Civil Engineering and Mechanical Engineering. The first year of the course is in the Faculty of Engineering, and students are

selected for the combined course at the end of the first year. The first intake for the combined course is planned for 1987.

Research, consulting and continuing engineering education

There is increasing interest in the work of the faculty by Australian industry and the engineering profession. The faculty maintains a wide range of contacts with industry and government agencies which sponsor several of the faculty research programs. There is also a wide range of consulting activities for government and industry, and continuing engineering education programs designed to present the latest engineering developments to the profession.

The research activities in the faculty are stimulated by these contacts with industry. As an engineering faculty we welcome the opportunities to work on problems occurring in practice. However the faculty continues to be frustrated in its research by the relatively low level of general (ie, non-specific) funds available for engineering research in Australian universities, compared with say US, European or even UK universities. There are also imbalances in research funding within the university sector. For example, engineering research in Australian universities operates at a much lower level of funds than that available for medical research in Australian universities. There is a similar disparity in funding for engineering research by government, with government research establishments receiving substantially greater funds than engineering faculties in universities. We believe that there is need for an Australian Engineering Research Council.

A major concern continues to be the relative absence of young Australian engineers in our research school: some 60 per cent of PhD candidates in the faculty are overseas engineers. A major factor discouraging young Australian engineers from enrolling for research degrees in Australian universities is the low level of scholarship stipends, which are about one third of engineering graduate

starting salaries.

One measure of the productivity in research (and teaching) is the number of publications. In the past year, the faculty staff published some 226 research papers and five books, a fine achievement for ninety academic staff who already accept very high teaching loads.

Staff movements, honours and awards

Professor I J Polmear, chairman of the Department of Materials Engineering, was appointed Deputy Vice-Chancellor, initially for one year from 1 January 1987. Dr P Rossiter, reader in Materials Engineering, was appointed chairman of that department *pro tem*.

Dr J F Mathews was promoted to associate professor, and Dr P L Rossiter and Dr T Sridhar were promoted to reader. Dr L N Binh, Dr G P Codner, Dr G H Edward and Dr D L Morgan were promoted to senior lecturer.

Dr R E Melchers was appointed Professor of Civil Engineering at the University of Newcastle, and Dr G I N Rozvany was appointed to a senior professorship at the University of Essen.

Monash Jubilee Medals were awarded to Professor J D C Crisp, Emeritus Professor K H Hunt, Professor N W Murray and Mr B F Young.

Professor L A Endersbee was awarded the Peter Nicol Russell Memorial Medal, the highest award of the Institute of Engineers Australia.

Concluding comments

The success of the faculty in attracting undergraduate and postgraduate students, and in attracting support from industry for research, is causing increased pressure on faculty resources. Faculty enrolments have increased by about 30 per cent in the past

four years, but there has been little change in academic staff numbers. This imposes additional teaching commitments on the faculty and erodes time for research and scholarship. In essence, the level of funding is insufficient to provide for the basic teaching needs of undergraduate and graduate programs. The shortfall in university funding is now being supplemented by outside earnings, which harms research in the faculty. Furthermore the use of outside funding for teaching purposes reduces incentives to attract such funds.

The increased faculty enrolments are also placing pressures on teaching space and there is a particular need for additional lecture theatres. In the first and second years of the course some of the lectures are repeated two and three times, and a large lecture theatre with capacity equal to an entire year in engineering would enable more efficient use of staff and student time.

The success of the faculty in attracting research contracts with industry and government is also placing pressure on accommodation within the faculty — almost fifty additional people are supported from these funds. These research personnel require office and laboratory space. On the other hand the faculty does not wish to curtail the increasing interest by Australian industry in university research and development. There is accordingly a particular need for additional office accommodation for industry-funded personnel, and for space for graduate scholars. An additional office building is required.

There is every indication that undergraduate and postgraduate enrolments will continue to increase, and that research collaboration with industry will continue to strengthen. Accordingly it is important that these needs for additional academic staff, lecture theatres for teaching purposes, and offices for industry funded personnel be met at the earliest opportunity.

Faculty of Law

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

My report for 1986 must start by thanking Professor Ray Martin and Professor Kevin Westfold for their assistance and cooperation during their terms as Vice-Chancellor and Deputy Vice-Chancellor respectively. I am sure all of my colleagues join me in wishing them both the best for the future. We also extend our warmest wishes to Professor Mal Logan on the commencement of his term as Vice-Chancellor. We hope 1987 will be a successful and happy year.

Faculty funding

The continued refusal of the Commonwealth Government to fund our universities on an appropriate basis has meant that a significant amount of energy and time has had to be devoted to the creation of alternative sources of funds for teaching and research. Australian universities are not traditionally used to the task of fund raising and we have had to learn new skills and techniques in attempting to win funds from private industry. The Faculty of Law has been particularly successful in this new era. The firm of solicitors Arthur Robinson and Hedderwicks has generously established a visiting professorship in commercial law, with special emphasis on company law, at this law school. The appointee is to hold a joint appointment with the University of Melbourne for a semester. Dr Len Sealy, a distinguished English company lawyer will be the first visiting professor. The professorship is to be offered every two years but because of the bicentenary in 1988 it will be offered again in 1988. We are extremely grateful to the firm for this generous support of this faculty and University.

Through the recently formed Centre for Commercial Law and Applied Legal Research considerable research funds have been generated for research projects in the faculty and the centre. CCH Australia Ltd has granted a large sum of money to the centre to conduct research in the area of contract law. The Business Council of Australia has agreed to match an ARGS grant in support

of a research project on corporate governance. The Company Directors Association of Australia Ltd has also agreed to support this project financially. Both of these projects are to be supervised by me and the success in obtaining these funds indicates that other members of staff may also be able to attract funds to the faculty.

It is anticipated that further support will be forthcoming in a number of ways during 1987 for both the centre and the faculty. All of these initiatives have been generated by a very small group of people in the faculty and it is necessary for earmarked resources to be devoted by the faculty (and the University) to ensure that further sources of funds may be tapped appropriately.

Alumni

It is my view that the alumni of the faculty will become a major resource of the University in the years ahead. My intention is to increase the very modest administrative support which is provided by the faculty to the Monash Law Alumni in the hope of reaping rewards and to further contacts with our alumni.

In 1986 three of our alumni were honoured by being appointed Queens Counsel. Mr Ray Finklestein (graduated in 1970), Mr Michael Rozenes (graduated in 1970) and Mr Mark Weinberg (graduated in 1971) are the first Monash graduates to achieve this distinction. The Monash Law Alumni elected as its president Ms Marilyn Pittard, a lecturer in the Monash Faculty of Law. It has agreed to support certain educational initiatives in the faculty in honour of the founding dean of the faculty, the late Sir David Derham. Details of this initiative have yet to be settled.

Research

Research activities in the faculty have continued to prosper. Whilst we still do not receive what we believe to be an equitable share

of the research funds of the University it is clear that the members of the faculty have maintained and improved upon their record which is second to none (on a per capita basis) in the University. As part of the Monash Twenty-fifth Anniversary celebrations the faculty produced a monograph which lists all of the research output of the faculty since its foundation. This publication is a testament to the outstanding achievement of this young faculty. In 1986 we established a faculty research committee convened by Acting Professor Terry Carney, Director of Research in the faculty. One of the aims of this committee is to generate sufficient funds from various sources to enable greater efforts to be put into research. The Centre for Commercial Law and Applied Legal Research has set aside from its budget over \$30 000 for research, which fund has been available to members of faculty and students in one form or another. The Victoria Law Foundation has granted Tim Pinos and Rick Krever a significant sum to conduct research on computer assisted legal education. We hope to become a focal point for such developments in Australia.

Teaching

The faculty's teaching program will be further enriched by new courses to be offered at both undergraduate and graduate level in 1987. Our first course on Civil Liberties will be taught by a distinguished visitor, Professor P O'Higgins, of the University of Dublin and Beth Gaze, a lecturer in the faculty. Revamped courses in International Trade and International Banking are to be offered in the master program, the latter to be taught jointly by partners of the firm Malleons, Stephen Jacques. Similar arrangements have been proposed for other courses. During 1987 the faculty will debate a proposition that a Diploma in Social Welfare Law be introduced into the graduate program.

Centre for Commercial Law and Applied Legal Research

Mr Lucio Dana was appointed the first full-time director of the Centre for Commercial Law. Until Mr Dana's appointment in September 1986 I have been interim director of the centre. It has been highly successful in less than two years of operation but will need to generate more income from public seminars if it is to provide more funds for faculty programs. To date it has made available considerable sums for research and equipment (well over \$50 000).

The centre continues to obtain significant support from law firms in four states, business houses in two states and chartered accountants and publishers in two states. The Governing Council and Committee of Management of the centre is anxious to expand its performance as a research centre and it is hoped that more members of faculty will be willing to participate in its various activities. Its successful intensive workshops continue to be a highlight of its activities.

In 1986 it hosted a number of distinguished visitors who participated in various workshops and other activities. These included Professor Henry Manne, a leading exponent of the law and economics movement in the USA, Mr Richard Yorke QC, a leader of the London Commercial Bar, Professor Harry Glasbeek of Osgoode Hall Law School, Toronto (and a former member of the Faculty of Law at Monash who spoke on industrial relations), and Professor John Price of the University of Washington who participated in a taxation workshop. Visitors to the faculty also participated at centre workshops and seminars. These included Professor Deborah De Mott, Fulbright Scholar of Duke University (an expert in corporate law) and Mr Nick Gaskell of the University of Southampton, a leading academic in maritime and transport law. Other shorter term visitors to the centre and faculty who participated in centre and faculty activities were Professor Mitsuo Matsushita of the University of Tokyo (international trade law), Dr Julian Law, a London practitioner and lecturer at Queen

Mary College (commercial arbitration), Professor David Vernon of Iowa State University (an expert on legal education), Professor Allan Hutchinson of Osgoode Hall Law School, Associate Professor Tan Keng Feng of the University of Singapore and Professor Lind of the University of Florida were exchange professors from the three universities with which Monash has an active exchange program. Also teaching at Monash in 1987 on the exchange program was Ms Sue Morgan of the University of Melbourne.

Promotions, resignations and appointments

Promotions were obtained by a number of persons during 1986. Terry Carney and Peter Hanks were both promoted to associate professorships. Rick Krever was promoted to a senior lectureship and three lecturers, Sue McNicol, Jeff Waincymer and Sam Murrumba were given accelerated increments.

It was with regret that we saw the departure of Professor Peter Ellinger (returning to Singapore for personal reasons), Dr Chin Yen Lee (going into private practice in Sydney), Ms Catherine Williams (returning to private practice), Ms Judith Gardam (appointed to a lectureship at the University of Melbourne) and Mr Mark Hayes (going into private practice). Ms Lucy Hunter did not seek reappointment in 1987. We wish each of them success in their new positions.

Mr Mark Gannage of Toronto, Canada, was appointed to a lectureship in 1986 but will only join us in January 1987. Ms Beth Gaze was appointed to a lectureship — she was previously a senior tutor in the faculty. Mr Bruce Dyer, the joint 1986 Supreme Court Prize Winner, and Mr Tim McCormack have been appointed to tutorships, and Mr Lee Burns to a senior tutorship. We have advertised two senior lectureships tied to the commercial subjects. One offer of appointment has been offered at lecturer level — it is hoped to be able to make an announcement shortly. Two tenured and one fixed term lectureship

as well as tutorships have been advertised.

At the end of 1986 the two vacant chairs, the Sir John Barry and the Sir Owen Dixon chairs of Law were advertised. It is anticipated and hoped that these chairs will be filled during 1987. No fields have been attached to the chairs, but it is quite clear that the faculty would benefit significantly if at least one appointment could be made of a leading scholar in the field of commercial law generally.

Other activities

Monash co-hosted the Twelfth International Congress of the Academy of Comparative Law in August 1986. Our co-hosts were the University of Sydney. Over 300 overseas visitors attended the congress and it was an outstanding academic, cultural and social event. Associate Professor Francis Trindade ably led a small team of hard workers to ensure the Monash end of the congress ran smoothly and successfully.

During the congress the Wilfred Fullagar Memorial Lecture was delivered by Professor Ross Parson of the University of Sydney to a large and receptive audience. The lecture will be published by the *Monash Law Review*. The *Monash Law Review* also commemorated its most recent issue in honour of the late Sir David Derham, founding dean of the faculty.

The *Australian Tax Forum* continues to be produced by the faculty in cooperation with the Centre for Commercial Law and the Centre of Policy Studies. Rick Krever has maintained the excellent quality of this journal recognised as one of the best of its kind in the world.

Our faculty is the headquarters of the fast growing and important Banking Law Association Ltd. A part-time administrative officer, Fay Stewart, has been appointed to administer the work of the association.

Our mooting team won the right to represent Australia at the Jessup Mooting Competition in Washington in April 1986. Harry Reicher must be congratulated for his outstanding work in this area; he has retired

Pictured at the Twelfth International Congress of the Academy of Comparative Law are (from left) Associate Professor Henry Finlay, Professor Michael Pryles and congress delegate Professor Wu Da-Ying from the People's Republic of China. Professor Wu presented some new books on Chinese law to the Monash collection.



from his role as coordinator, his place being admirably filled by Emeritus Professor Kingston Braybrooke.

Statistics

Student enrolments

<i>Enrolments</i>	
PhD	10
LLM	116
Diplomas	56
Bachelors	1 327
NFD	8
<i>Total</i>	1 517

Staff

Actual appointments as at 31 December 1986 totalled 63.4 (including staff on leave without pay but not casual staff).

Faculty professional activities

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

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.

Faculty of Medicine

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

Students

The total number of EFTS in the faculty at 30 April 1986 was 1 753. There were 882 medical undergraduates distributed as follows: Year I: 145; Year II: 146; Year III: 142; Year IV: 146; Year V: 156; Year VI: 147. Female entrants comprised 38 per cent of the first year intake.

Staff

Staff comprised 206 members of academic staff, 154 technical staff and sixty-two 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

At a special graduation ceremony to mark the commencement of the University's Silver Jubilee Celebrations, Emeritus Professor Sir Edward Hughes, former Professor of Surgery at the Alfred Hospital, was awarded the degree of Doctor of Laws (*honoris causa*). Dr H W Garlick, formerly Dean of the Clinical School Prince Henry's Hospital, was made a Member of the Order of Australia. Clinical Associate Professor B H Toh was awarded the degree of Doctor of Science. Professor G D Thorburn was invited to deliver a plenary lecture at a meeting of the International Union of Physiological Sciences held in Vancouver in August. Dr R G Skurray was awarded grants from the British Council Academic Links and Interchange Scheme and the Australian Academy of Science — Royal Society Exchange Program. Professor A L A Boura and Mr I R Macfarlane of the Department of Pharmacology received the Queen's Award for Technological Achievement for the development of buprenorphine, a potent analgesic.

Appointment of professors

The faculty was strengthened by the appointment of six new professors during 1986.

Professor M T W Hearn DSc PhD *Adel. MA Oxon.* was appointed to the chair of Biochemistry left vacant by the retirement of Professor J Bornstein. At the time of his appointment, Professor Hearn was a principal research fellow at St Vincent's Institute of Medical Research and senior research associate in the Department of Medicine at the University of Melbourne.

Professor P E O'Brien MD BS FRACS was appointed to the chair of Surgery, Alfred Hospital, vacated by the retirement of Professor Sir Edward Hughes. At the time of his appointment, Professor O'Brien was an associate professor at Flinders Medical Centre in South Australia. Professor O'Brien is the second medical graduate from Monash University to be appointed to a chair in the faculty.

Professor J J McNeil MB BS *Adel. MSc Lond. PhD Melb.* FRACP was appointed to the chair of Social and Preventive Medicine following the resignation of Professor L J Opit. Professor McNeil's principal research interests lie in clinical epidemiology, largely in areas of cardiovascular risk. At the time of his appointment, Professor McNeil was epidemiologist in the Clinical Pharmacology and Therapeutic Unit of the Austin Hospital.

Professor E G Westaway BSc PhD *Qld* MASM was appointed to a personal chair in the Department of Microbiology. Professor Westaway joined Monash University as a lecturer in 1969 and was appointed reader in 1974. Professor Westaway's current research activities are directed towards the eventual definition of all aspects of gene expression.

Professor S M Cordner was appointed Foundation Professor of Forensic Medicine. Under an agreement with the State Government, the Professor of Forensic Medicine will also assume directorship of the new Victorian Institute of Forensic Pathology, replacing the present position of Chief Government Pathologist. The chair will be based in the new Coronial Services Centre being constructed

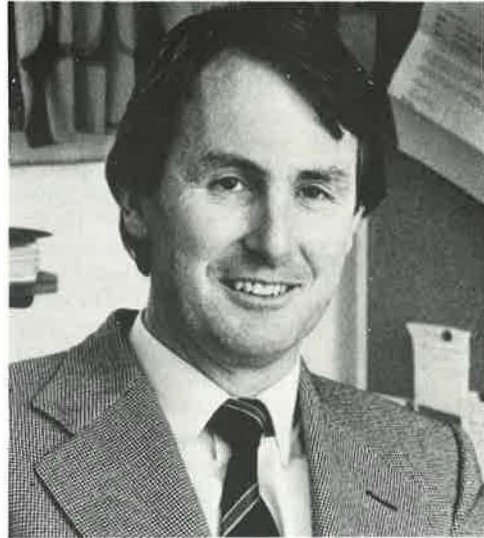
Professor Paul O'Brien who was appointed to the Chair of Surgery. A graduate of Monash University, Professor O'Brien specialises in research into gastric physiology and the pathogenesis of gastric mucosal disease.

to replace the old Coroners Court and Mortuary. Professor Cordner will take up his appointment in May, 1987.

Professor M L Wahlqvist BMedSc MD *Adel*, MD *Uppsala* FAIFST was appointed to the chair of Medicine, Prince Henry's Hospital made vacant by the resignation of Professor C I Johnston. At the time of his appointment, Professor Wahlqvist was Foundation Professor of Human Nutrition at Deakin University, and also an associate in the Monash University Department of Medicine at Prince Henry's Hospital. Professor Wahlqvist will take up his appointment in March, 1987.

Visitors

Anatomy — Dr P Chatterjee (University of Leeds), Dr K-P Tantayaporn (Chulalongkorn University), Professor R C N Williamson (University of Bristol); *Biochemistry* — Mr B. Ansbach (Guttenberg University), Dr M Aydelotte (Rush — St Luke's Presbyterian Medical School), Dr C Biswas (Tufts University School of Medicine), Dr J Chou (National Institute of Child Health and Development, Bethesda), Dr E Eikenberry (University of Medicine and Dentistry of New Jersey), Dr J Forsayeth (University of California Medical School), Professor E D Hay (Harvard Medical School), Dr J Kimura (Rush — St Luke's Presbyterian Medical School), Dr S Man-Hua (Chinese Institute of Dental Research, Bethesda), Dr L Sandell (Rush — St Luke's Presbyterian Medical School), Dr D Schwartz (Rush — St Luke's Presbyterian Medical School), Professor K J Stevenson (University of Calgary), Professor B P Toole (Tufts University School of Medicine); *Centre for Early Human Development* — Mr A Cassou (L'Aigle), Dr A Ferraretti (Bologna University), Dr L Gianaroli (Bologna University), Dr B O'Donnell (Our Lady's Hospital for Sick Children, Dublin), Dr J Osborn (Manchester Hospital), Dr K Shiota (Kyoto University), Professor A Surani (Institute of Animal Physics and Genetics, Cambridge),



Dr Y Tadir (Tel Aviv University), Dr A K Tarkowski (University of Warsaw); *Community Medicine* — Professor P Grantham (University of British Columbia), Professor P Sive (University of the Negev); *Medicine* — Professor G Stevenson (University of Southampton); *Paediatrics* — Professor J Forfar (University of Edinburgh), Professor R Goldbloom (Dalhousie University), Professor M Harrison (University of California), Dr M Levine (Leicester University), Professor Yin Li-Quao (Nanjing Medical Centre), Professor K Minde (Queen's University), Professor P Niknafs (Kerman University), Professor S Wer-Lin (Suzhou University); *Physiology* — Professor T Chester-Jones (University of Sheffield), Associate Professor R J Harvey (Otago University), Professor A Iggo (University of Edinburgh), Professor W Kozak (Carnegie-Mellon University); *Psychological Medicine* — Professor G Fink (Medical Research Council Brain Metabolism Unit, Edinburgh); *Surgery* — Dr F D Moore (Harvard University).

Monash Medical Centre

On 9 September the Minister for Health, the Hon. David White MLC, 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 be amalgamated to form a Monash Medical Centre, with effect from 1 January 1987. 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 reestablish its former relationship with the University of Melbourne.

Research funding

Funds obtained by the faculty in 1986 for new and continuing projects were \$2 504 957 from the National Health and Medical Research Council and \$287 507 from the Australian Research Grants Scheme. Research funds from other sources amounted to \$3 862 760 including \$425 500 from Fund Source 13.

Faculty of Science

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

Student enrolment trends

In terms of its total enrolment, the faculty has neither grown nor contracted significantly over the last several years, reflecting the virtually steady state funding situation for the University in recent times. In EFTS terms — ie, enrolments reflecting the aggregate teaching load of the departments in the faculty, the peak enrolment experienced in the last seven years was 2 766 in 1983, whereas the lowest enrolment was 2 595 in 1986. In 1985, the total EFTS stood at 2 691, so the 1986 enrolment was 96 EFTS lower, or down by 3.5 per cent. However, in terms of the number of students enrolled in the courses administered through the Faculty of Science, there was a slight increase in numbers from 2 729 in 1985 to 2 775 in 1986.

Investigation by the faculty office has revealed that the cross-faculty teaching pattern changed somewhat in 1986. In particular, after tending to take a lower proportion of second and third year Science students in the last few years, the biomedical departments in the Faculty of Medicine have again attracted a larger portion of these students, decreasing the Faculty of Science yield of EFTS from the students enrolled in the Science undergraduate programs.

The State Government moved to address the growing imbalance between the supply and demand of tertiary places in Victoria by funding additional places for first year students under its Youth Guarantee Program. Twenty-four of these places were allocated to the faculty and they were all filled with students deemed to be disadvantaged on socio-economic grounds by the faculty selection committee.

The BSc (honours) course enrolment was lower in 1986 than in any other year in the last ten-year period. As a proportion of the previous third year enrolment the honours enrolment has followed a declining trend in recent years. Perhaps this phenomenon is a reflection of the buoyant employment prospects experienced by students immediately after completion of their pass degree studies

in most disciplines, but nevertheless it is of concern to the faculty to see the base for recruitment into future research somewhat eroded.

Undergraduate teaching

After a period of active planning and preparation by staff primarily in the Department of Earth Sciences, faculty board was pleased to give its approval to the introduction of major studies in Geophysics. A working group comprising staff from the departments of Earth Sciences, Physics and Mathematics, which was set up by the former dean in 1983, had established that there was significant interdisciplinary interest in this area and that also the mining and oil exploration industries saw such a development as desirable. With financial backing from Esso Australia and special funding from the faculty, it was possible to make two Geophysics appointments in Earth Sciences 1985, one at senior lecturer and the other at lecturer level. Geophysics units within the Geology third year subjects were in fact already offered in 1986. A sizeable proportion of the equipment funding of the department in the last couple of years has been devoted to the acquisition of suitable equipment for Geophysics, including relevant advanced computer graphics equipment.

Graduate teaching and research

Recent developments in genetics and molecular biology have facilitated the production of growth hormones, insulin and interferons and are expected to have far-reaching implications in areas such as medicine, agriculture and the food industry.

To produce graduates who will be able to enter either the research and development or production areas in these fields, the faculty and the University have agreed to establish a Master of Biotechnology course. There is currently no other similar course operating in Victoria. While the course is to be admin-

Co-authors, Dr Pat Rich (Earth Sciences and Zoology) and her daughter, Leaelyn with a copy of *Victoria: Long, long ago* — a palaeontology book for children in primary schools. Inset is an illustration of *Mimmi paravertebra*, an armoured dinosaur known to have existed in Australia around 110 million years ago. The illustration is from another of Dr Rich's recent books, *Kadimakara: extinct vertebrates of Australia*.



istered through the faculty board of the Department of Science it will provide interdisciplinary training in biotechnology based on expertise and resources in the faculties of Engineering (Chemical Engineering), Medicine (Microbiology and Biochemistry) and Science (Genetics), with support from the CSIRO Division of Chemical and Wood Technology. An inter-faculty academic committee, with representation also from CSIRO, reporting to the board of the Faculty of Science, will be responsible for the administration of the course. It will, however, be necessary to secure additional resources prior to the launching of the course and to this end negotiations are proceeding with interested outside parties. It is hoped that students will be admitted to the new course in 1987.

Further to the development of major undergraduate studies in geophysics the faculty also gave its approval in 1986 to the establishment of a coursework-based MSc program in Geophysics to be available from 1987. Reference has already been made to the planning and preparation in the Department of

Earth Sciences for the introduction of studies in Geophysics. The Masters program will consist of 55 per cent coursework and 45 per cent project thesis.

Research

The faculty continues to be very proud of its research record and has set in train adjustments to its internal budget allocation procedures which will further promote excellence in research and other endeavours. The many grants and donations for research received by staff in the faculty are of course fundamental to the vigorous pursuance of research, and it is pleasing to note that the support received from the various funding agencies has again increased in 1986 at a rate exceeding inflation. The table below shows the funds received from the ARGs, the Monash Special Research Grants Scheme and from other sources. Details of the research undertaken, and the higher degrees conferred, are reported in detail in the University's *Research report*.

Department	ARGS	MSRG	Other grants	Total
Botany	17 350	12 700	145 450	175 500
Chemistry	360 405	77 000	441 434	878 839
Computer Science	68 890	—	10 500	79 390
Earth Sciences	128 206	34 000	121 256	283 462
Genetics	99 577	15 900	174 909	290 386
Mathematics	67 800	12 750	155 246	235 796
Psychology	116 188	31 400	57 020	204 608
Physics	190 998	41 000	72 681	304 679
Zoology	46 170	32 440	244 343	322 953
Dean	15 716	31 745	—	47 461
Totals	1 111 300	288 935	1 422 839	2 823 074

Accommodation and equipment

The faculty continues to be very concerned about its space problems. A plan was agreed to in outline but its completion was held up due to delays in relocating the Graduate School of Environmental Science, HEARU, and the Centre for Human Bioethics. The faculty has also proposed the construction of a new building to house the faculty administration and to provide much needed flat-floor space for mathematics and other teaching. The relocation of faculty administration would make available suitably serviced space to meet the needs of the Department of Chemistry for additional laboratories.

The faculty equipment vote has increased in line with government funding but the situation looks certain to deteriorate. Many major items are at the ends of their economic life spans and many others are being made obsolescent by advances in technology at rates faster than ever before. The problem has been compounded by the depreciation of the Australian currency as little of the relevant equipment is available from Australian sources. In 1986 a substantial amount was

expended on equipment. The normal equipment allocation from Fund Source 14 was supplemented by off-the-top funding from the University (to assist with the acquisition of an NMR spectrometer), a special one-off allocation from Fund Source 13 (Research) and additional money secured by the faculty through a variety of budgetary and expenditure manipulations.

Staffing

The faculty is facing a heavy turnover at the professorial level. During 1986, appointments to chair positions in Computer Science (Dr L M Goldschlager) and Earth Science (Dr G S Lister) were accepted and an honorary chair appointment was made in Chemistry (Dr J R Anderson). A joint ICI/Monash chair in Industrial Chemistry was also established, the appointee being Mr A Baklien. Three long-serving professors left their positions in the faculty during 1986 — Professor M J P Canny (Botany) took up a new position in North America and Professor H C Bolton and Professor R F E Van Der Borgh retired.

The Library

Librarian: Mr T B Southwell BA Syd. ALAA

The massive weakening of the Australian dollar in 1985, especially toward the end of the year when most of our periodical subscriptions become due, resulted in very considerable overspending, in spite of a substantial subvention from central funds some months earlier. The library started 1986, therefore, heavily in debt.

Emergency plans were drawn up, at least to see us through the year. They involved virtual cessation of book ordering, as it was too late in the year for cancellation of periodical subscriptions to take effect, reduction in hours of opening, staff retrenchments, deferment of development of computerised services and increases in late fees, photocopying and data base search charges. A strong reaction from students and from staff unions prompted the release of enough funds to maintain reader services at much their usual level, but book intake was severely curtailed, development of computer support ceased and as staff left and were not replaced, those remaining in all areas of the library were stretched almost beyond possible limits.

The financial problems that began in 1985, coupled with problems of interpretation of some of the library's statistics (and it must be said doubts as to the accuracy of some others) prompted the appointment by the Vice-Chancellor of a small committee to review the library's financing. This committee, led by Dr J A McDonell, was appointed early in April and quite remarkably was able to produce its report by the end of July.

It recommended an allocation for 1987 sufficient to maintain the library's 1985 acquisition rate pending a survey to establish the University's actual library needs. It proposed more sophisticated budgeting techniques and extra staffing to cope with these enhancements; this latter proposal did not run. Nor did the suggestion that book and periodical funds be indexed and be a first charge against the University's budget.

Other recommendations related to the membership of the General Library Committee and other committees. Particularly, one was suggested to consider future directions for automation in the library. This

potentially very important group was being assembled at the end of the year.

With the considerable reduction in available funds, ordering of new books was greatly reduced, being brought virtually to a standstill in the Biomedical and Science-Engineering areas. Perhaps as an expression of sympathy, the number of volumes received as gifts reached an all-time high of 9 252, of which 7 634 were happily retained. The rest, duplicating material already held in the collection, were donated to ACPAD, an agency of the Australian Universities International Development Program, for distribution to Third World university libraries. Of especial interest was part of the personal library of the late Paul Hirsh, a significant figure in Viennese literary circles between the wars. The collection, which included much extremely valuable material, was donated by his son-in-law, Mr Frank Pam. There is, we know, even more to come. Mr Lindsay Shaw added to his already very important collection of Australian children's books. To these and the many other donors who have enriched the shelves we express our sincere gratitude. Especially to be thanked are the committee members of the Monash Parents' Group, who raised the very welcome sum of \$10 000 for the library, as well as money for other departments of the University.

Even with these windfalls, our intake of new books was sharply reduced. Processing capacity was largely diverted to catching up on the back-log of uncatalogued books from previous years, and some inroads were made in that. The library's figure for monograph titles taken into stock and catalogued was therefore only slightly less than in 1985, at 24 278; 407 new periodical titles were added (220 of them by gift or exchange), but 537 were closed off. The library's periodical collection is steadily shrinking and it is clear that it will continue to do so, which is very bad news indeed for research workers.

Still, the collection did grow, by a net 31 757 volumes, bringing it to 1 290 716 volumes.

Cataloguing techniques have changed over the last several years, tending towards use, in a network environment, of cataloguing

data derived from national agencies or other libraries. For some time the Victorian network, CAVAL, provided that service to several libraries including Monash, and (through their contractors, Libramatics) produced our microfiche catalogues. When the Australian Bibliographic Network took over their networking role, the cataloguing data of all the participants was loaded into the ABN data base and ABN produced the libraries' catalogues. Feeling that the ABN operation, though undoubtedly the future, was unstable and makeshift at the beginning, Monash continued to remain with Libramatics for a year before confident enough to transfer the operation. The cataloguing produced in that year was excluded from the ABN data base until 1986, so that while most of our catalogue was on the ABN microfiche, that year's output was still on a separate fiche series. Fiche catalogues are difficult to use at any time, but this anomaly made ours worse. It was a moment of great joy in June when ABN finally did load our file, and our fiche catalogue was at last available to us in one series.

The continued development of an interactive on-line public catalogue was halted, formally until the McDonell Committee report was accepted and the direction of development could be re-defined, but in any case because of limitations on programming staff. A segment of the SESAME project was virtually ready for public use, and it was in fact made available to users in the Hargrave Library, towards the end of third term. Called BOOKLIST, it was a comparatively unsophisticated enquiry system based on the Library's brief-title INVENTORY file. Intended only as a back-up to SESAME, for titles whose full details were not yet machine-readable, it still found much favour, especially among students, confirming that there is strong demand for a quick and simple approach to books whose details are already known.

After twenty years of continuous increase in the number of loans, they began to fall in 1981 and have done so almost consistently ever since. The year's total was 562 579 as against 616 141 in 1985. Inter-library loans to other libraries also continued to fall, though

only marginally, from 22 822 to 22 811, while borrowings from other libraries continued to increase, from 8 183 to 8 490.

Formal integration of the Biomedical Library sub-branch at Queen Victoria Medical Centre with the centre's own library was completed during the year, the opportunity being grasped to weed much obsolete and duplicated material. The Biomedical Librarian has been meeting with the centre's librarian and with the librarians of Prince Henry's and Moorabbin hospitals, all of whom will be involved in the merger to form the Monash Medical Centre. It is hoped to establish a formal committee structure in 1987 to plan for the library needs of the integrated hospital.

In the Main Library, the move of the Government Publications office from the fifth floor to its more convenient location on floor one was made in February; the collection serviced by the office took most of the year, as a background job, being completed in November. The rationalisation of office and service areas on the one floor will certainly enable staff to work more efficiently, and improve service to users.

In the wake of the McDonell Report, there were many months of soul-searching, strain, committee meetings and plain hard work as its recommendations were discussed and implemented. This happened to coincide with a period of long service leave for the University Librarian. His deputy, Mr Doug May and the Technical Services Librarian, Mr Peter Mitchell, were left to cope. With strong support from the rest of the staff they succeeded; the University Librarian and the University generally are deeply in their debt.

The Silver Jubilee celebrations of the University were held during the year, the library marking the event by a party for old members of staff. It was a happy occasion and it was agreed that the library had much to be proud of, much to celebrate, despite the grim financial backdrop to the celebrations.

UNIVERSITY FACILITIES

Alexander Theatre

In a number of ways, 1986 was for the theatre a spectacularly successful year. The productions which it staged, or in which it had an interest, enjoyed great popularity, and in financial terms it is difficult to recall a year in which results were more pleasing. Once again more than 100 000 people attended presentations. This was also the year in which the theatre undertook its first large-scale program of capital improvements, with the replacement early in the year of the entire seating of the auditorium, and the satisfactory completion by the end of the year of the building of the Theatre Resource Centre. We hope to complete the second stage of the rebuilding project, the construction of new dressing rooms, in 1987: It is, then, a particular pleasure and relief to be able to report the healthy monetary position for 1986.

Again it was in the area of theatre for children that the Alex had its most conspicuous successes. *The Magic Faraway Tree* in January, another very cleverly staged collaboration with Rainbow Management, played to houses well in excess of 90 per cent; that rare level of popularity was maintained by the May vacation show, *Three Cheers for Noddy*, and by the Young Dancers' Theatre production of *Cinderella* in August. Schools tours by shows like *Winnie the Pooh* in which the theatre has a strong interest, again provided great entertainment and lucrative returns. The Saturday Club continued to go from strength to strength. A fourth subscription series for the younger (5-8) age-group was added in response to unprecedented demand, and the five series which were offered thus played to a club membership of around 2 500. The committee is currently investigating the possibility of expanding the Saturday Club program to include workshop and performance activities for club members.

The theatre was again busy in its function as a venue for amateur performance groups, and it is worth noting in particular the quite outstanding Cheltenham Light Opera Company production of *Follies* in October, among a number of strong offerings. We can be well

satisfied, I think, with the Alexander Theatre's involvement with its surrounding community; this is maintained not only in terms of its association with a wide range of activities for children and adults, but in the very real contribution which the theatre's staff, both managerial and technical, make to so many of these presentations.

The picture for 1986 is not rosy from every perspective, however. There are some ominous signs about future occupancy by large-scale performance groups in the demise of one of our most active users, the Melbourne Musical Theatre, and the departure of another, Babirra Players. The latter case reflects the fact that the theatre no longer has a stranglehold as a venue in the eastern suburbs, and faces strong competition from theatres backed by generous council subsidy with which our hiring rates cannot compete. The scale, facilities, and ancillary services which the theatre offers do offset that financial disadvantage, but nonetheless it will be necessary over the next few years for the committee to take into account the possible dwindling of a source of funds which has been vital to the theatre's existence over a long period.

Another disturbing note was the absence in 1986 of any Monash-based student theatre presentation. It should be said that this was a consequence of the collapse of plans for a very ambitious collaborative production by all campus groups of *Marvellous Melbourne*, which was originally scheduled for the theatre; in 1987 MUMCO have returned to their normal policy of staging their major production in the theatre. Still, the lack of student performances at the theatre remains a cause for concern and regret; the *Monash Festival of Theatre*, which was of course an Alexander Theatre Committee initiative, remains quite vigorously in evidence, but seems likely to continue in venues that are smaller and appear less formally theatrical. The theatre committee has consistently been concerned to promote exciting productions, rather than being satisfied simply with whatever pays the rent; currently a number of proposals are under discussion whereby we

might, within the limits of our present financial constraints, develop initiatives in response to changing patterns of usage.

There are two further items which give particular pleasure to report: one is the opening, after protracted bureaucratic delays, of the theatre's bar in January, and its formal naming in December in memory of Professor Arthur Brown; the other is the prestigious award of a Churchill Fellowship to the theatre manager, Mr Phil A'Vard, which not only gave well-deserved recognition to his own work at the Alex but reflected great credit on the theatre itself. Mr A'Vard was able to study a number of developments in children's theatre overseas, and the benefits to the theatre of that experience are sure to be considerable.

Once again I would like to place on record, on the committee's behalf, our warm appreciation of the dedicated service of all members of the theatre's staff during the past year.

Monash University Bookshop

In order to make the end of the year coincide with the date of the annual stocktake, and with the advice and consent of the Comptroller and Internal Auditor, the Bookshop Board has now adopted 31 October as the last day of its financial year.

Sales for the ten month 'year' of 1986 were \$1 817 882 — almost 2 per cent more than for the twelve months of 1985. The bookshop reduced its stationery prices, allowed customers discounts on books totalling \$123 279, and offered a large number of books at bargain prices.

After achieving these savings for customers the bookshop still made a profit of \$126 098 for the 'year'. About \$13 000 of this profit was the direct and artificial result of the change in balance date.

In view of this profit the board decided in November to increase customer discounts even further.

Religious Centre

Members of the chaplaincy for 1986 included Reverend Father Laurence Foote OP, Roman Catholic chaplain; Reverend Philip Huggins, Ecumenical chaplain; Pastor Peter Pfitzner, Lutheran chaplain (part-time); Rabbi Shimon Cowen, chaplain to Jewish students (part-time); and Father Antonios Krinas, with Father Dionysius Dimitrie, visiting Orthodox chaplains.

The Religious Centre continues to be used daily for individual meditation, prayer meetings, bible study, and services for various faiths. The campus religious societies utilised the Religious Centre facilities for meetings and discussion groups and a number of outside organisations also used the centre for seminars, musical recitals and religious services. Bookings were made for five baptisms, one funeral and one memorial service, as well as for ninety-two weddings.

A series of fifteen musical recitals was held during second and third term, attracting students, staff, and visitors. These recitals featured organ, harpsichord, piano, voice, and instrumental groups, and were well attended. The support received by way of a grant from the Vice-Chancellor enabled prestigious musicians to be invited to participate.

As in previous years, an ecumenical service was held to mark the beginning of the academic year. This service was conducted jointly by the chaplains with the address being given by the Right Reverend Dr T F Little DD Roman Catholic Archbishop of Melbourne.

As part of the Monash Silver Jubilee celebrations, a thanksgiving service was held in May at which the address was delivered by the Very Reverend Father P Knowles OP Master of Mannix College, with an interesting program of music and the reading of a specially written poem for four voices, by Philip Martin.

Careers and Appointments

Client demand upon the Careers and Appointments Service continued to follow the

pattern of increase of recent years. The service was more than fully extended in meeting this demand due to loss of two staff for lengthy periods due to illness, unavoidable delays in replacement of staff and a number of significant new initiatives introduced during the year. Chief among these was the use of computerised career guidance, an information day for careers teachers, year 12 coordinators and school principals, a Schools Link Program and a Junior University Program.

The University has acknowledged the importance of providing secondary students with realistic information. Increased resources allocated to this activity led to the publication of a prospectus from the Publications Office, while the Information Office expanded the distribution of its publications to schools. The University's Jubilee celebrations included Open Day. An information day organised by the Careers and Appointments Service for school staff held in the Robert Blackwood Hall in August attracted 300 participants. A grant from the CTEC provided for the development of programs to enhance the motivation and aspirations of students attending ten schools that were identified as disadvantaged. Implementation of these programs is proceeding and provision has been made for up to forty students from the schools who might not otherwise be admitted to the University to receive bonus marks added to their selection score. For the Schools Link Program to achieve its potential, continuity of funding for at least three years is necessary.

The Junior University Program, designed to provide students with an introduction to university life attracted 273 participants from ninety-one schools in Victoria and southern New South Wales. This program, held in December 1986, was most successful and is confidently expected to attract increased enrolment in 1987.

Demand from schools for visits continued to be high, and increased efforts will be made in 1987 to coordinate greater participation in school-based activities from all sections of the University.

Established programs involving employ-

ers, such as the Campus Interview Program and the Employer Information Program were well supported. The Employer Contact Centre, in its second year of operation, is now beginning to provide an opportunity for many students and graduates to obtain first-hand knowledge of the potential scope of their courses. Employers were most supportive of the service through providing donations, publications, travel costs, training for staff and assisting with most aspects of our work.

Employment prospects for all graduates were at the most favourable level for some years, with less than 2 per cent of 1985 graduates being unemployed.

The use of word processors continued to play a vital role in the administration of the service, thereby allowing the newly acquired IBM personal computer to be mainly used as an aid to counselling and career guidance. Computerised career guidance is the main function of the personal computer at the present time, but course and occupational data bases are likely to be available in the near future. Having limited computing facilities restricts work that might be done on exploring and utilising much of the exciting software being developed overseas.

University Counselling Service

The past year has been a particularly good one for the University Counselling Service. A return to stability in staffing has led to a very good work environment and excellent work satisfaction for all staff members. The number of students seen in one-to-one counselling increased by 12 per cent and in group work increased by 40 per cent. Almost 950 students and staff members were seen in individual counselling during the year and 622 students participated in our group programs. The groups centred mainly around study skills and stress management issues. The counsellors also provided lectures for the Law, Education, Medical and Arts faculties during the year. The counsellors value these opportunities to make a contribution to the academic life of the University.

The problems presented to the service con-

tinue to centre around study difficulties (24 per cent), personal concerns with identity (25 per cent), relationship problems (16 per cent) and educational-vocational issues (14 per cent). It was noticeable in 1986 that motivational issues in relation to both study and vocational uncertainty showed a marked increase. This issue will be more closely monitored and explored in 1987.

Students' Grants and Loans Committee

Two hundred and eleven applications for assistance were considered, of which 120 were made specifically to assist in meeting the Higher Education Administration Charge. All but one of the applications were approved. The total amount of assistance given was \$219 187.

During the year, an additional \$189 000 was made available under the Commonwealth Government Special Assistance to Students Program, bringing the total of all funds administered by the committee to \$792 740. Of that amount \$420 912 was on loan at 31 December 1986.

The committee initiated measures to have the Morgen Fund, with an additional \$100 000 available to give financial assistance to students, brought under its administration.

Expressions of appreciation of assistance given continued to be received.

University housing

Requests for assistance in finding student housing were quite numerous, the main enquirers being overseas students. Close to campus, shared accommodation is the most sought after. The applications for rooms at the south-east flats still outstrip availability.

It would appear that Federal Government policy is causing a shortage of properties available for rental.

Fair wear and tear has caused the introduction of a three-year replacement plan for beds and electric stoves and refrigerators.

Overseas visitors and new staff members

are most appreciative of the furnished short-term accommodation provided by the University.

Health Service

During the first half of 1986 difficulties were experienced at the Health Service because of the staff shortage which occurred with the resignation of Dr Jenny Morley. Dr Sally Allmand who replaced Dr Morley was unable to take up the position until June. This meant that from time to time patients had to wait a little longer than usual or elected to come back at a later time. However there was always the anxiety that if one of the doctors was not well or was away for any reason, it would be difficult for those remaining to cope, even with patients being flexible.

Over the whole year there were 398 fewer consultations made by 223 fewer people. One of the factors likely to affect how many people seek our assistance during this year is the severity and the time of year that outbreaks of respiratory illnesses occur. 1986 was a good year in this regard with a drop of 656 consultations for respiratory illnesses, a fall of 14 per cent over the previous year.

The service, commenced in 1985, of collecting blood and microbiological samples was continued during 1986. This has meant more work for the nursing sisters and would be impossible without their considerable expertise. The benefits to the patients of them doing this is tremendous. However, none of this would have been possible without staff flexibility and the willingness to help each other out.

In 1986, 6 992 individuals made 21 578 consultations. Of these consultations 6 083 were made by staff and 16 147 by students.

RESEARCH CENTRES

Centre for Continuing Education

1986 saw the publication of the Johnson-Hinton report to the Commonwealth Tertiary Education Commission. It suggested that universities should be more active in the fields of continuing education. The centre responded by drawing particular items of the report to the attention of the professorial board and requesting (unsuccessfully) an increase in funding from 0.13 per cent of recurrent funds to the 1 per cent referred to in the report.

Towards the end of 1986, approval was given for the appointment of a new program coordinator, the position to be funded from the centre's current reserves accrued over the years.

During the year, the Director chaired the Committee on Library Finances which produced a report to the Vice-Chancellor.

The languages program continued to receive strong support as did Welfare and the engineering program. It was noted that many features of Welfare had foreshadowed some of the suggestions contained in the Johnson-Hinton report— ie, it is often involved in offering in-depth exploration of major public issues and the program is firmly based on needs surveys conducted by the centre.

This year, the centre, in collaboration with the Council of Adult Education, hosted the first Interhostel Group to come to Australia. It was a very successful venture and will be repeated in 1987.

The University of the Third Age at Monash continued to go from strength to strength with a large number of activities available at any one time.

For the future, the centre looks forward to an increased level of activity and of challenge. There are many areas in social welfare, science and technology which need constant exploration by both practitioners and the wider public. The centre aims to respond to these needs to the best of its capacity.

Centre for Migrant and Intercultural Studies

The centre has had a very full year's activities. 1986 was the first year in which we have had four faculties (Arts, Economics and Politics, Education and Law) affiliated.

Sixteen seminars were held, some on Monday evenings and an increasing number on Tuesdays at lunchtime. The topics have been diverse and the seminars have been addressed by international, interstate and local scholars and other personalities in the field. These have included Professors Konrad Ehlich (Dortmund), W Isajiw (Toronto), Mike Long (Hawaii), Reg Appleyard (WA), Ian Burnley (NSW) and Stephen Castles (Wollongong). Professor Werner Besch (Bonn) visited the centre and the Department of German throughout first term and conducted a seminar for local experts in the sociolinguistics/language contact field.

Silver Jubilee Open Day was marked by a research display and a talk by Mr Al Grassby, the former Minister for Immigration and head of the Community Relations Commission.

During the year the centre embarked on two commissioned research projects — one on multiculturalism (based on an ethnic radio phone-in) for the Review of Migrant Programs and Services and one on Australia's linguistic and cultural futures for the Commission for the Future and the Ministerial Advisory Committee on Multicultural and Migrant Education.

The centre's two publishing endeavours, the *Journal of Intercultural Studies* and the working papers series, have continued.

From November 14-16, the centre is organising a conference entitled 'Prejudice in the public arena: racism'.

In 1987, for the first time, the centre will venture into undergraduate teaching. It has planned a minor sequence in the second and third year of the BA, based on existing options offered by departments and a special interdisciplinary methodological subject.

Computer Centre

The year of 1986 was an uncharacteristic one for the Computer Centre in that there were no major items of equipment installed. The 1986 equipment grant was approximately \$640 000 and it was clear from the investigations which had been made in 1985 that the University would not get good value for money by purchasing a new computer for that amount. The centre took the view that it was better to try to gain a significant increase in capacity for 1987. A VAX 8700 was ordered for delivery in February 1987.

The centre allocated \$1 883 000 for the purchase of the VAX 8700 and other equipment, most of which was ordered by the end of the year. This sum was made up approximately by: \$500 000 from the 1986 equipment grant, \$831 000 from the 1987 equipment grant, \$354 000 as a special grant made by the Vice-Chancellor and \$200 000 from the centre's outside earnings fund.

The VAX 8700 is expected to service over 100 terminals at peak periods. It will not be used for any undergraduate activities until such a time as it is not fully utilised for research. The move of research work from VAX 780 and 750 computers will free other resources which will be allocated for undergraduate teaching. A second VAX 780 will be made available to the Department of Economics and it is expected that some additional VAX 780 resources will be available to the Faculty of Engineering.

Academic staff in the centre taught a total of twelve subjects in Electrical and Computer Systems Engineering, Computer Science, Mathematics, Mechanical Engineering and Civil Engineering. By far the largest course in terms of student numbers, was for about 900 students of first year Mathematics.

The bulk of the research and development effort went into the local area network (MONET) which continues to expand. At the beginning of 1986 there were some 1 900 ports and at the end 2 800. There are now seventy-three MONET nodes distributed throughout

the campus. Manufacturing of nodes by the centre has now ceased and they are purchased from Racal Electronics. A number of high speed interfaces to VAX computers were manufactured to increase the number of ports available on some computers. Research and development activities involving new capabilities for MONET continued and a program commenced to improve the data handling capacity of nodes and increase the maximum line speed from 9 600 bits per second to 19 200. Work on an Ethernet interface for the B7800 computer reached the stage where the hardware is operational and work is proceeding on the programs to enable communication between the B7800 and other computers. Further progress was made in the area of image processing associated with mineral sorting.

Communication between computers was enhanced by the introduction of Ethernet. It has been used to connect VAX and Pyramid processors in the centre and will be extended to the VAX machines in Economics during 1987. Ethernet is being used for transferring files between computers and has proved effective for copying files from a VAX as a way of recording back-up copies. This technique is the basis of a strategy aimed at avoiding using demountable disk packs for backing up files, a goal forced upon the centre by the unacceptably high incidence of head crashes on such packs.

The maintenance engineering section serviced the triple processor B7800, ten VAX 11-780s, five VAX 11-750s, three Pyramids, the MONET network, about 1 800 terminals, eighty printers and numerous microcomputers. Eight used disk drives and two controllers were obtained for a nominal amount and refurbished for use on the B7800. Equivalent new equipment would have cost over \$100 000 and been uneconomic to purchase.

Engineering development work continued on the VAX memory extension project commenced in 1985. A Mark 3 memory extension scheme was devised which allowed original DEC 256k byte memory boards to be reworked to make two megabyte units. This,

with a modification to the memory controller, provided a very cheap way of upgrading VAX 780 memory to a maximum of thirty-two megabytes. All ten VAX 780s now operate with some form of local memory modification with at least twice their original memory limit of four megabytes and five machines are operating with sixteen megabytes of main memory. For an outlay of the order of \$50 000 in parts and labour, the engineering staff have produced a result equivalent to that which would have required the purchase of memory controllers and memory for about \$500 000. Second-hand memory boards are being purchased, as they come available, with a view to bringing all VAX 780 memories to about sixteen megabytes, which is believed to be about the effective limit for that machine.

In addition to maintaining operating systems and providing a consulting service the programming staff put a significant effort into providing new facilities. A system for the production of high quality documents, T_EX, which had been installed in 1985, was enhanced and arrangements made for sending to a phototypesetter at Chisholm Institute of Technology, documents for which laser printer output is not of adequate quality. Other software developments included: a system for sending and receiving Telex messages via computer, implementing the file transfer system called Kermit on the B7800, improvement of the system for registering students to use computers, extending the capabilities of the high speed interface between MONET and VAX computers, improved graphics facilities and the production of graphs showing the performance of the centre's computers.

Staff in the centre devoted a substantial amount of time to the replacement of the University's PABX. By any measure this was a major project. The PABX will be used for both data and voice communication. Initially it will be connected to MONET so that devices connected to digital telephone handsets will be able to access computers. At a later stage it may be possible to install a direct connection between the PABX and a com-

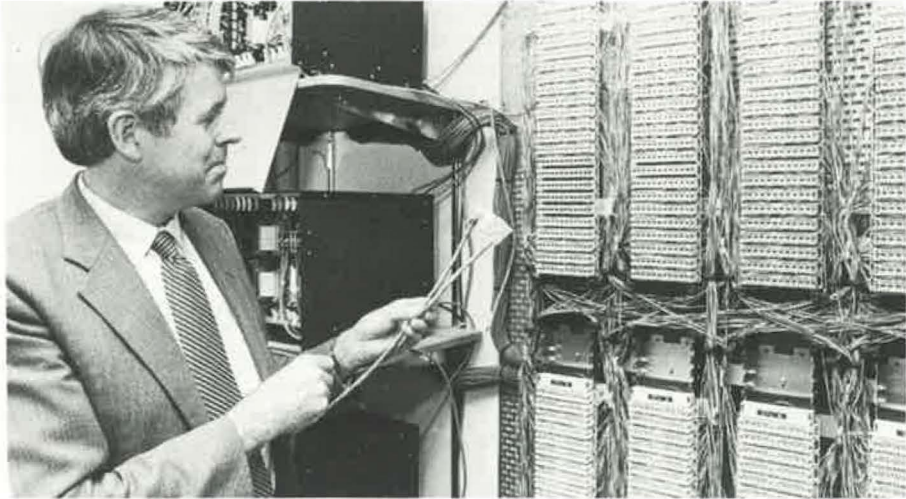
puter using two megabit per second multiplexed channels. Modems will be connected to the PABX so that the incoming trunk lines can be used for computer access through Telecom's telephone network. This is expected to reduce the number of incoming telephone lines, as computer access traffic is at a peak outside normal working hours when the trunk lines normally used for voice communication are lightly loaded. The PABX project has spawned a new development project in the form of a telephone information management system (TIMS). Having found that there was no commercially available system with all the capabilities needed, the centre decided that the best approach was to design and develop one.

The Victorian Government continued to use the B7800 computer and provide a significant income to contribute both to the centre's operating costs and to the Computing Research and Development Fund. Income to the fund was \$158 709 and \$131 577 was contributed to computing research projects. The total which the fund has allocated for computing research at the University since its inception in 1985 to the end of 1986 is \$207 577.

Microcomputer prices continued to fall during 1986 to the point where an IBM compatible machine could be purchased for less than \$1 400. The centre continued to survey the market and check new products and recommend equipment for purchase. It added one IBM compatible microcomputer to its list of 'supported' products and this resulted in greater interest in the purchase of microcomputers.

A total computing budget of \$2 355 410 (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 \$2 499 377 compared to \$2 369 200 for 1985. This relatively small increase is largely explained by the reduction in charging rates made in August 1985. There were other contributing factors; namely — the saturation of existing facilities, particu-

Dr Cliff Bellamy, director of the Computer Centre, demonstrates the MONET bus.



larly during the day and in the later part of the year; the VAX 780 computers being too slow to make it worthwhile attempting some classes of computation; and the increasing use of microcomputers for work which previously needed a large computer.

There were approximately 9 100 current account codes in 1986, of which 6 162 were for undergraduates and 2 972 for staff and postgraduate students. The total number of people using the centre's facilities during the year was approximately 6 600.

The total University FS1 budget allocated to the centre for 1986 was \$1 905 910. 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 \$1 708 521 rather than the \$2 190 412 billed at the prevailing rates. A rebate of 22 per cent was therefore made.

The Department of Economics computing charges more than doubled, rising from \$116 606 in 1985 to \$271 052 in 1986 which represents 15.9 per cent of the total for the University. The increase in computing activity was even greater than the factor of 2.3 indicated by these figures as the rates charged

for computing decreased in October 1985. It is partly a reflection of increasing activity in the teaching of computing techniques, predominantly to students of accounting, and partly an increased amount of research computing. As a result of the growth in demand in this area it was agreed that an additional VAX 780 computer would be allocated to it in 1987. For other parts of the University the charges and computer use for 1986 followed reasonably closely the pattern for 1985.

The expenditure of the centre in 1986 and 1985 is shown below under a few broad classifications.

1985		1986
1 554 854	Salaries and associated costs	1 688 344
3 013	CSIRO computer time	5 479
250 638	Consumables	204 170
698 198	Equipment purchased	875 099
48 446	Software	65 863
8 186	Miscellaneous	—
	Building and site work	18 790
17 312	MONET Racal royalties	—
10 100	CRD transfers	34 900
<u>\$2 599 747</u>		<u>\$2 892 645</u>

The budget provided by the University was \$1 946 907 for staff and consumables and \$670 824 for equipment. The balance of the expenditure of \$274 914 was met from outside earnings.

The profits derived from the operation of the B7800 computer are allocated to the Computing Research and Development Fund (CRDF). The fund received \$158 709 during the year and \$131 577 was allocated to research projects. These figures are not included in the table above.

The balance of \$626 568 in the outside earnings fund at the end of 1986 includes \$204 455 in the CRDF of which \$98 625 was not allocated and the remainder allocated but not yet spent. The amount available to the centre for other purposes is \$422 113 compared to \$409 950 at the beginning of the year. It is highly likely that the Victorian Government's use of the B7800 computer will end early in 1987 cutting off the CRDF income and reducing the income available to the centre by about \$200 000 per annum. As there are no immediate prospects of finding other equivalent sources of income, the centre has to face the difficult problem of reducing the expenditure of outside earnings on supporting University computing activities. In 1987 the balance of the outside earnings account can be expected to reduce significantly.

Royalties paid by Rascal Electronics for MONET to the end of its financial year (31 March) came to approximately \$50 000 which does not appear in the centre's accounts. An agreement has been negotiated with the University administration for the expenditure of up to \$80 000 of payments made by Rascal on new developments which will enhance the University's data network system and make MONET a more competitive product. The data communications industry world wide has not fared as well as was hoped and the market predictions for MONET appear to have been substantially revised.

Total expenditure for 1986 of \$2 892 645 was about \$300 000 more than in 1985. The increase is accounted for mainly by the expenditure on the VAX 8700 computer which

was partly paid for at the end of 1986. In terms of funds committed, there was an additional \$1 183 000 of 1987 equipment funds to be used for the VAX 8700 and other equipment. Expenditure on salaries and wages increased by 8.5 per cent.

The purchase and resale of microcomputers is not reflected in the accounts. As prices and margins dropped it was found that there was no longer a significant benefit to the University in acting as a microcomputer retailer. Therefore this activity was substantially reduced by negotiating arrangements with three suppliers whereby they supplied machines directly to University departments, staff and students at attractive prices.

Graduate School of Environmental Science

In 1986 the number of units taught by the Graduate School of Environmental Science was twenty-one and with other relevant units across the campus the number of units available for selection by candidates was 120.

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

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

Ten candidates have been involved in project work for which the research reports and minor theses will be submitted in early 1987. Topics studied included management of metropolitan wildlife reserve — Gellibrand Hill, vegetation and fire history in East Gippsland, stress among metropolitan fire brigade officers, and community involvement in fire control.

As well as being involved in supervision of the above research teams, staff have undertaken research into social and environmental implications of technology, philosophy/anthropology of appropriate technology, politics of development and environment in Victoria, ecological context of political structures and change in advanced capitalist societies, relationship between environmen-

tal and other social movements, strategies of environmental planning, environmental impact assessment procedures, environmental education, and effects of soil compaction on forest species.

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.

Enrolment information

	MEnvSc			DipEnvSc		
	Full time	Part time	Total	Full time	Part time	Total
Enrolled December 1985	9	126	135	—	—	—
Number of applicants 1986	43	57	100	—	—	—
Offers made	35	47	82	—	—	—
Acceptances (as at 27/1/86)	19	32	51	7	7	14
Total enrolled 30/4/86	11	106	117	7	7	14
Total withdrawn/intermitted during 1986	10	35	45	—	—	—
Graduated 1986	5	20	25	—	—	—
Total enrolled December '86	8	107	115	2	13	15

Higher Education Advisory and Research Unit

The Higher Education Advisory and Research Unit (HEARU) has five principal functions, which are: the giving of specific advice on the conduct of tertiary teaching; the counselling of individual members on problems they encounter in tertiary teaching; the provision to the University of general information and advice on tertiary education; the conduct of research into aspects of tertiary education; and the provision of an educational technology service.

As part of the service offered to academic staff formal workshops on aspects of tertiary teaching were conducted in February and throughout the year. Each year fifteen to twenty per cent of all academic staff have some professional contact with HEARU. Eight departments and seventeen smaller groups requested evaluation of their courses; twenty-eight persons sought assistance with matters

relating to student assessment and there were thirty-six other requests in areas other than those mentioned above.

Every even-numbered year since 1970 a detailed questionnaire has been given to every first year undergraduate enrolling at Monash for the first time. These sociological data provide a data base, which is one of only two in existence in Australia, which enables an inspection of trends to be made in the sociological characteristics of our entering population.

For nearly ten years HEARU has been involved in the Thai Universities Lecturers' Scheme which had as its objective the development of HEARU-type units in every Thai university by the year 1990. Due to a change of policy direction from education to trade in the Australian Development Assistance Bureau this scheme will not be funded 'for the foreseeable future'.

Two national research contracts worth over \$100 000 were won in open competition by

HEARU for projects for the Commonwealth Tertiary Education Commission and the Commonwealth Department of Education late in 1985, and both were completed on time and within budget during 1986.

Considerable time was spent on issues related to long range planning and on the analysis of the comments in Government reports on accountability, access and equity, efficiency and effectiveness or on the restructuring of the CTEC and the Victorian Ministry of Education and the Victoria Post-Secondary Education Commission.

A small grants scheme funded by the Vice-Chancellor called the Teaching Improvement Projects (TIPs) was again successful in stimulating staff to be innovative in the manner in which information and ideas are presented to students. Since its inception in 1981 over eighty projects have been funded, covering an enormous range of topics from Chinese pictographs to videodiscs.

One book, four journal articles, four conference papers and a large number of internal reports were published during 1986.

STUDENT ACTIVITIES

Orientation

The orientation program introduces students to both the academic and non-academic aspects of University life and provides them with a variety of practical information and assistance to facilitate their entry into, and passage through, university.

Three days of orientation officially begin with an opening ceremony in the Robert Blackwood Hall. Students are introduced to the Vice-Chancellor, various senior administrators and academics, and to members of Student Services.

The individual faculties provide academic orientation through coffee sessions and informal introductions/discussions with academic and administrative staff. This orientation is also reinforced at the departmental level.

The host scheme has become one of the major components in the orientation program. Small groups of students are given tours of the University by voluntary hosts (later year students) and these combine with social activities and camps to provide new students with early contacts and familiar faces on campus.

The success of orientation is also dependent upon the involvement of clubs and societies, sports and recreation groups, the Monash Association of Students and the Arts and Craft Centre. The displays and social activities organised by these groups complement the academic side of the program.

Monash University Sports and Recreation Association

Separation of the association from the Union as recommended by the Tadgell Committee of Inquiry became a reality in March 1986. Implementation of the Tadgell recommendations took much longer than was anticipated but early indications are that the changed arrangement is working well and was, as argued by the association, in fact long overdue.

One interesting by-product of the sepa-

ration issue was that it briefly focused attention upon the association. This attention brought home to at least some members of the University community that the association has a significant role in extending the life of the campus after 5.00 pm and at weekends and holidays. It has always provided, and is now to an increasing extent continuing to provide, a link with graduates irrespective of their faculty.

Since its inception the association has adopted a positive approach to community use, adopting as a general principle that facilities such as table tennis be made available to local youngsters at times which do not unduly inconvenience members. A specific exception to the general rule is the swimming pool which was built on the understanding that some space would generally be available for public use.

Unfortunately some negative aspects of the association's approach are causing concern as they involve staff in unpleasant and time-consuming incidents. These include persons misrepresenting themselves as members in order to try to gain student discounts, or using facilities without permission and when challenged arguing that as tax payers they have every right to use university premises as and when they please. This line of argument usually persists despite notices and personal communications advising that all facilities and services are now wholly developed and maintained from student amenities fees. Nevertheless the positive aspects, such as community service, goodwill for the University, and even the diversion of energies away from more destructive activities seem to justify the association continuing this policy.

It is pleasing to report that the extensions to the Alpine Lodge which were completed late in 1985 were well used. The University grounds were further developed and alterations to the squash court change rooms were completed early in the year.

Plans for extending the recreation hall to provide extra space for recreational programs, casual use and to improve the ability to hire the hall for specific sporting carnivals were begun. The extension will also enable

indoor hockey to be played on a full-size international indoor pitch. The association is also planning to increase the size of the existing weight training room as soon as funding is available. It is hoped that both these projects will be completed no later than July 1988.

Students and staff continued to make good use of the sports complex and the programs offered by the association. Activities such as weight training for strength and muscle tone and aerobics for cardiovascular improvement are particular features of this interest.

Another example is that fitness assessments provided by the association now occupy some twenty hours per week of a staff member's time. The enthusiasm for social recreational activities such as corecreational games and beginners classes continues at a high level.

A particular feature of the University Silver Jubilee celebrations was the Sports and Recreation 25-athon, a fun event consisting of twenty-five *Life. Be In It* type activities in a relay formation. Thirty teams of eight individuals competed. The Tertiary Credit Union's sponsorship of the event was gratefully appreciated. This event was so successful that it attracted attention from other organisations wishing to hold similar functions.

In the Australian Universities Championships (formerly known as Intervarsity contests), Monash was successful in the Women's badminton and softball and the men's table tennis competitions.

The association hosted the sailing, judo and gymnastics contests and co-hosted with Melbourne baseball and badminton.

The association is widely represented in local competitions but is finding that most clubs are now competing against what may be loosely termed semi-professional teams.

The Union — administration and general

In 1986 the Union operated on an expenditure budget of \$2 870 928 derived from a

Union fee of \$238 for full-time students and \$149 or \$104 for part-time students. Substantial surplus funds carried forward from the 1985 budget were held in reserve and later used to modify fee increases in 1987. Subscription rates for all categories of optional Union membership were increased by \$2.00. The Union budget covered both the Union and the Sports and Recreation Association, although these bodies became separate entities in March 1986. As from that date the Union fee became the students' amenities fee, and recommendations to the Monash University Council on the amount of the fee and the disbursement of funds became the responsibility of the Joint Finance Committee for Student Amenities.

The immediate effects on the Union of its separation from the Sports and Recreation Association were that Mr Doug Ellis, Deputy Warden of the Union for twenty-one years, retired from Union duties to concentrate on his job as Director of Sport and Recreation, and the two Sports and Recreation Association representatives retired from the Union Board. The board proposed to maintain a board membership of sixteen, but has not yet decided how to fill the two vacated positions. Matters which concern both the Union and the Sports and Recreation Association are now referred to two joint committees for decision or advice.

The Union was prompted to review its aims and objectives with the result that its first aim, as stated in the Statute, is now 'to promote generally within the University the intellectual, cultural and social development and the general welfare of its members'.

In the building and development area the remodelling of the Health Foods Shop, offices on the first floor and the MAS offices were completed early in the year. This upgrading of accommodation was appreciated by staff and, in the case of the Health Foods Shop, has increased the turnover. Much time and energy was devoted to finding a location for the Union bar/social centre but the project was hampered by costs associated with new building regulations. As at the end of the year conversion of the main dining room

into a bar/social centre was the favoured solution, but other options were still under consideration. The Union's financial commitment to construction of a social centre for students and staff at the Alfred Hospital was increased to \$130 000. In the allocation of funds from the amenities development fund, priority was given to the bar project. Consequently, much-needed renovations to several Union areas were deferred and the prospect of a building extension faded into the future.

The Union food services returned a combined surplus in excess of \$52 000, the major factors in this result being significant increases in turnover in the Catering Department and in the Health Foods Shop, and a salary recovery in the Catering Department arising from the catering manager acting as a consultant for the Melbourne University Union.

There were no significant changes in the staffing establishment. The procedures for appointment of staff in MAS areas were finally determined by the Union Board although the 1986 Administrative Executive of MAS would have preferred a higher degree of autonomy in staff appointments than the procedures allow.

Once again, the business of the Union Board covered a diverse range of subjects, some of the highlights being:

- The board nominated Mrs Anne Seitz, the MAGS representative on the board, to use an overseas fare donated by Student Travel Australia Ltd. The fare enabled Mrs Seitz to attend the eleventh World Congress of Sociology in New Delhi in August.
- Concerns expressed by the board that the four-term school year in 1987 would have serious implications for Monash students and staff with school-age children, resulted in an arrangement with the Oakleigh and Waverley City Councils whereby Monash students and staff will have the opportunity to enrol their children in playgroup programs to be conducted by those councils during some of the school holiday periods in 1987.
- The board declared a policy with regard to freedom of speech and the right to dem-

onstrate. It also declared its opposition to tertiary fees in any form.

- Approval was given to the purchase of eight Celia Rosser banksia prints which are now handsomely displayed in the John Medley Library.
- Discussion began on a proposal for a centralised equipment hire or loan facility and will continue in 1987.
- The Director of Sport and Recreation negotiated with the Waverley Dental Clinic and the Royal Hospital of Melbourne for the facilities of the dental clinic to be made available to Monash students on a part-time basis. As a result Monash students will have the opportunity to use this service in 1987. The fee for service will be heavily subsidised from the students' amenities fee. As anticipated in 1985, recent Federal legislation has disallowed the medical benefits which were formerly included in the student accident insurance cover. As a result of a well-organised 'clean air' campaign run by one student, non-smoking sections have been designated in dining areas and a new house rule states that smoking is permitted elsewhere in the building only if it causes no discomfort to others in the vicinity.
- Initially, the board rejected claims from Union members that the Community Research Action Centre was not using its budget in the best interests of the student body, and rejected requests for a review of the CRAC constitution. The complaints were then referred to members of parliament and the Monash University Council with the result that the Vice-Chancellor asked the board to conduct an independent enquiry into the areas of expressed concern. The enquiry will proceed early in 1987.

The student activities scene was as lively as ever, as indicated in the separate reports below from the major student groups. The Community Research Action Centre's program reflected current interest in international issues, the gay movement and sexuality generally, ID cards, organic gardening and woodchipping in East Gippsland.

Student Radio 3MU continued to develop its equipment and to offer training in broadcasting skills in preparation for a long-awaited limited-range FM licence. Highlights of the Student Theatre included a production of 'Inside the Island' which later went on tour, and a playwright's competition. The Student Employment Office reported placing a record number of students in casual and course-related employment and has extended its vacation job recruitment into country areas.

Clubs and Societies

1986 was a very successful year for the Clubs and Societies Council. A number of new clubs were formed and all clubs benefited from grant monies distributed on the authorisation of the student-elected Clubs and Societies Executive.

The variety of services already offered to clubs which include photocopying, duplication, electronic stencil cutting and screen printing, and the IBM Selectric typewriters purchased for club use, have proved to be very popular.

The Clubs and Societies Executive and staff continued to provide assistance to club office-bearers, in the form of responses to queries about the access to and distribution of funds. Considerable time was also spent by staff in assisting and advising newly-appointed club personnel to understand the Clubs and Societies manual and grants criteria.

The Clubs and Societies office is now working at full capacity and looking forward to a busy and very successful 1987.

Monash Arts and Crafts Centre

It is a pleasure to report that once again 1986 proved to be a busy and eventful year for the Monash Arts and Crafts Centre.

However this year saw several major staff changes. Ms Bev Hunter was appointed as new coordinator in April to replace Ms Sharon Patience who left to further her studies. Then Mrs Betty Thompson retired in November.

Mrs Thompson had been at Monash University for over twenty years, of which sixteen years had been spent with Arts and Crafts Tuition. She had seen the latter grow from very humble beginnings, when classes were tucked away in odd corners of the University, to the widely recognised, well patronised courses being held in the attractive surroundings of the Arts and Crafts Centre as it is today.

1986 followed the established format of four terms per year and offered a very wide range of courses. It has become apparent that a major growth area is in courses aimed at improving personal skills such as typing and computer courses, as well as personal development such as stress management or study skills, and further expansion is planned in these areas. However old 'tried and true' courses (such as pottery, music, leadlight to name a few) continue to be popular and so provide a good base on which to add other short-term or one-off courses.

Weekend workshops are increasingly a major drawback. They attract many people who work or who live distant from the University and therefore cannot take advantage of the week-by-week courses. They also offer the opportunity to present special events or crafts that do not fit into the other program.

Summer School continues to be a major event in our year. It is still a leader in its field and attracts participants from near and far. Despite the change in the Victorian school year, ie the four-term year, Summer School is expected to remain substantially the same.

Every effort is being made to continue to promote interest in and awareness of the centre and the courses it offers. The centre faces intense competition these days from other organisations such as the TAFE colleges — particularly the nearby Homes Glen and Outer Eastern Colleges — the Council of Adult Education and Neighbourhood Centres. Many of these can offer lower fees because of subsidies and grants yet the centre not only holds its own but has achieved growth in its participation rate. Monash student participation rates in particular have continued to increase and positive efforts, such as direct

mail, have been made similarly to increase staff participation rates.

Unfortunately enrolments towards the latter part of the year appear to have been adversely affected by the publicity given to possible alternative uses for the centre. Of course, to ensure a continuing and flourishing function, good publicity and efficient running are essential. Our nationally recognised and highly regarded asset, the Monash University Arts and Crafts Centre can continue to function at its highest possible capacity and reach even greater heights with the combination of a dedicated and hard-working staff, and Union and University support.

Monash Association of Graduate Students (MAGS)

1986 was a year in which MAGS was able to maintain the impetus of enthusiasm generated by the present researcher/organiser in the five months that she held the position in 1985.

A full committee of fifteen was elected at the annual general meeting and dinner in April. The members of this committee have been diligent in their attendance at the monthly meetings in spite of the added responsibility for many of them of work commitments outside of the University. Sub-committees were formed as the need arose to deal with certain complicated and/or confidential matters.

The MAGS staff increased to three with the employment of the part-time project officer. This released the researcher/organiser from many of the routine organisational tasks and allowed her to devote more time to research and policy matters. A particular effort was also made by the MAGS staff in 1986 to make personal contact with postgraduates by visiting them in their departments.

This personal approach was well received and resulted in a capacity attendance at the AGM and dinner. MAGS also now has a contact person in every department. This person has agreed to receive and distribute to other

postgraduates any newsletters, posters or information which the MAGS office sends out. MAGS has also ensured that postgraduates are represented on all of the governing boards and committees of the University which are open to them.

During 1986 the committee, researcher/organiser and staff worked on many issues, the major ones being: the MAGS constitution — resulting in its incorporation into a Statute of the University; the Monash Silver Jubilee Postgraduate Award — initiated and negotiated by MAGS; research into women and postgraduate scholarships; a petition to Monash University Council concerning the cuts to library funding and hours; Monash Graduate Scholarship stipend and dependents' allowances; a taxation guide for postgraduates; analysis of remuneration survey data; accident insurance for postgraduates; a survey of facilities for postgraduates within the departments and a lobbying campaign against the re-introduction of tertiary fees.

A thesis planning seminar was held, followed later in the year by a thesis writing workshop. Both were outstandingly successful and will be repeated in subsequent years. Two barbecues and a Greek dinner were arranged as well as the AGM dinner. All functions were booked to capacity.

In 1986 the postgraduate handbook *Compass*, prepared by MAGS, was distributed via individual departments rather than Student Administration. This allowed academic staff to become aware of its value, especially in providing information to prospective interstate and overseas applicants for postgraduate study at Monash. Preparation was undertaken for *Compass '87*. This will include the results of the facilities survey and other research done by MAGS. Five issues of the newsletter *Magnet* were produced. These proved very helpful in making part-time candidates feel part of university life.

MAGS continued to play an active part in CAPA, the Council of Australian Postgraduate Associations. The CAPA President was a MAGS committee member.

The really important decision of 1986 was that the MAGS researcher/organiser should

The Monash chess club has taken top honours for the State for two years running. Last year's victorious team are, from left to right, Guy West, Murray Smith, Ross Thomas and Matthew Drummond, winners of the A-grade premiership in the Victorian Chess Association's interclub competition.



undertake a major research project into post-graduate education under the supervision of Dr Terry Hore of HEARU. The research will generate data not currently available to those making policy decisions which affect post-graduate education and research.

A successful submission was made to the Union Board for an increase to the 1987 MAGS budget to allow adjustment to staff

working hours to compensate for the time allocated to the project by the researcher/organiser.

The committee is grateful to the Union Board and the Warden of the Union for their continued support of MAGS as it strives to represent professionally the postgraduate students of Monash University.

GIFTS AND GRANTS

Abrams, Mrs I D			
to Student Assistance Fund, Union			150
ACI Australia Limited			
for use in Krongold Centre for Exceptional Children			250
ACI Glass Packaging Division			
IPGR/CSIRO-Monash (Partnership-Monash, International Partners			
in Glass Research and Commonwealth Scientific Industrial Re-			
search Organisation) collaborative research project: Fibre rein-			
forced glasses, Associate Professor R McPherson (Materials			
Engineering)			39 375
Action for Aboriginal Rights			
for use in Aboriginal Research Centre			10
Adams, The Estate of the late George			
to support visiting lectureships in geriatric medicine (Medicine)			54 600
Aeronautical Research Laboratories			
for the project: Meteorological analysis of strong wind shear incidents			
at Bald Hills, Queensland, Dr R K Smith (Mathematics)			8 000
Alberta Heritage Foundation for Medical Research			
visit to Monash University by Dr K J Stevenson, Alberta, Professor			
M T Hearn (Biochemistry)			1 745
Alcoa of Australia Limited			
1983 Alcoa of Australia Prize for proficiency in fourth year Materials			
Engineering			200
Aldermans			
for use in Obstetrics and Gynaecology			750
Alexander, Mrs R D			
final payment for building of artists' rooms (Robert Blackwood Hall)	1 000		
for research (Civil Engineering)	500		
for Harpsichord Appeal	25	1 525	
Alfred Hospital			
for the following projects:			
Development of techniques for autologous and heterologous skin			
culture and grafting, Associate Professor J P Masterton and			
Dr R J Wale (Surgery, Alfred Hospital)		8 000	
Liver preservation, liver transplantation, Mr I E McInnes and Mr			
C Christophi (Clinical School, Alfred Hospital)		20 000	
Evaluation of the safety of end to end and intraluminal stapled			
anastomoses across linear stapled closures in the dog rectum,			
Mr A L Polglase (Surgery, Alfred Hospital)		3 000	
research	5 000		
grant-in-aid	2 500		
Dr S Pfueller			
(Medicine, Alfred Hospital)		7 500	
research	2 500		
grant-in-aid	2 500		
Dr H Salem (Medicine, Alfred Hospital)		5 000	
final payment of grant-in-aid: Platelet antigens, antibodies and			
changes in coagulation factor in thrombosis, Dr S Pfueller			
(Medicine, Alfred Hospital)	2 500	46 000	

Alfred Hospital		
Peter Grant Hay Cancer Research Fund		
1986 grant for cancer follow-up studies, Clinical Associate Professor F T McDermott (Surgery, Alfred Hospital)	20 250	
final quarterly payment 1986 grant for project: Evaluation of risk of colorectal cancer in first and second degree relatives of patients with colorectal cancer, Clinical Associate Professor F T McDermott (Surgery, Alfred Hospital)	6 750	27 000
Allen and Unwin Australia Pty Ltd		
royalties from book, <i>Aborigines and the Law</i> (Aboriginal Research Centre)		143
American Chemical Society		
for project: Intramolecular trapping of carbones generated by pyrolysis of formal precursors of arynes, Professor R C Brown (Chemistry)		17 216
American Cyanamid Company		
for research	63 956	
travel grant	2 374	
Professor M T Hearn (Biochemistry)		66 330
Angliss (Victoria) Charitable Fund		
to be used solely for the purposes of the Krongold Centre for Exceptional Children		5 500
Anonymous		
1985 Prize for Obstetrics and Gynaecology	100	
1985 Prize in Economic Statistics EC404	100	
AR Wallace Prize in Zoology	100	
for use by Associate Professor J Mainland (Surgery)	2 000	
for use in Chemistry	1 200	
for use in Surgery, Alfred Hospital	2 000	
to Hypertension Research Fund (Medicine, Prince Henry's Hospital)	3 600	
first payment for study of PN 200-110 in the treatment of patients with congestive heart failure, Clinical Associate Professor B McGrath (Medicine, Prince Henry's Hospital)	35 000	44 100
Anti-Cancer Council of Victoria		
for the projects: New platinum and palladium complex antitumour agents, Dr G B Deacon, Dr I A G Roos, and Dr L P G Wakelin (Chemistry)	52 095	
Regulation of Ribosomal RNA gene activity in chronic granulocytic leukemia cells, Dr D R Smyth (Genetics)	19 228	
A prospective study of non-melanotic skin cancer in Victoria, Dr R Marks and Dr T S Selwood (Medicine, Alfred Hospital)	5 500	
Membrane proteins of human plasma cells, Professor J W Goding (Pathology and Immunology)	41 000	
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)	33 000	
Immune response to tumour associated substances for the diagnosis and monitoring of cancer, Dr J Rolland (Pathology and Immunology)	14 006	

Tumour cell differentiation, modulation and the cytoskeleton, Dr J S Pederson and Clinical Associate Professor B H Toh (Pathology and Immunology)	25 020		
PhD scholarships: Dr M Buckley (Pathology and Immunology)	30 550		
Mr K Nelson-Reed (Chemistry)	12 000		
supplementary grant for the project: Growth — differentiation of brain tumours, Clinical Associate Professor B H Toh and Dr J S Pedersen (Pathology and Immunology)	492		
payment of academic back pay:			
Chemistry	613		
Genetics	370		
Psychological Medicine	624	1 607	234 448
Anutech Pty Limited			
for workshop and conference to discuss the future directions of development studies in Australia, Mr J McKay (Centre of South East Asian Studies)			4 500
ANZ Banking Group Limited			
for use in Careers and Appointments Service			500
Apex Foundation, The			
for the projects:			
Data acquisition analysis on infants at increased risk of sudden infant death syndrome monitored at home, Dr A M Walker and Dr T M Adamson (Centre for Early Human Development)	20 450		
Ontogeny of the respiratory rhythm generator in foetal and newborn life, Dr P J Berger (Centre for Early Human Development)	4 500		
Morphological and physiological development of the lung, the diaphragm and phrenic nerve of foetuses stressed in utero, Dr P J Berger (Centre for Early Human Development)	22 392		
Relationship of the ventilatory and endocrine response to asphyxia or isocapnic hypoxia in intact and carotid denervated newborn lambs and piglets, Dr D W Walker (Physiology)	24 253		
Regulation of lung volume during development implication for growth of the lungs, Dr B Harding (Physiology)	21 698		
Effect of foreign muscle on reinnervating motoneurons, Professor R A Westerman and Dr D Sriratana (Physiology)	2 190		
Immunocytochemical localisation of opioid peptides within the carotial body and adrenal medulla: an ontogenetic and functional study, Dr C McMillen (Physiology)	19 808	115 291	
Applied Chemicals Pty Limited			
towards 25-year Booklet Fund (Chemistry)			100
Arthritis Foundation of Australia			
for the projects:			
The presence and possible role of serine proteinase in the degradation of human articular cartilage, Professor D Lowther (Biochemistry)	4 500		
Role of growth factors in the repair of cartilage, Dr C J Handley (Biochemistry)	4 000	8 500	
Arthritis Foundation of Victoria, The			
for the projects:			

Mechanisms of cartilage degradation in experimental arthritis, Professor D A Lowther (Biochemistry)		3 000	
The use of polymers to minimise the abnormal release of pro- teoglycans from degenerative articular cartilage, Dr W D Com- per and Dr C J Handley (Biochemistry)		3 000	6 000
Arthur Andersen and Company			
1985 prizes in Business Finance	150		
Electronic Data Processing	150	300	
for use in Careers and Appointments Service		1 000	1 300
Arthur Young			
for use in Careers and Appointments Service			250
Association of Monash Medical Graduates			
for use in Faculty of Medicine			5 000
Association of Ukrainians in Victoria			
for maintaining lectureship in Ukrainian (Slavic Languages)			35 000
Asthma Foundation of Victoria, The first six months' payment for the project: Functional length and fatigability of respiratory muscles, Dr A R Luff (Physiology)			6 400
Astra Pharmaceuticals Pty Ltd			
towards travel expenses of Clinical Associate Professor B McGrath, Second International Meeting on Felodipine, Frankfurt, August 1986 (Medicine, Prince Henry's Hospital)			1 500
Australian Airlines			
1986 Prize in Air Law			100
Australian Asian Association of Victoria			
1985 Australian Asian Association Prizes:			
in Indonesian	50		
in Japanese	50		100
Australian Associated Brewers, The			
for the project:			
The cerebellum in experimental alcohol intoxication, Dr S C Phil- lips (Anatomy)			18 238
Australian Associated Smelters Pty Limited			
for the project:			
Research on zinc alloy sheet production by strip casting, reim- bursement: research costs		3 924	
Stipend		2 032	
Associate Professor B A Parker (Materials Engineering)			5 956
Australian Bank Employees Union			
for the project: Australian private banking industry labour market, Dr J Hill (Administrative Studies)			1 274
Australian Broadcasting Corporation			
for use in Aboriginal Research Centre			8
Australian Canned Fruits Corporation			
for use in Careers and Appointments Service			50
Australian Carbon Black Pty Ltd			
towards costs of 25-year commemorative booklet (Chemistry)			250
Australian Ceramic Society, The			
Frank Bailey Memorial Scholarship			
1985		300	
1986		300	600

- Australian College of Occupational Medicine, The
 1985 ACOM Prize 200
- Australian Drug Investment Limited
 first payment, research agreement for the project: Synthesis, testing
 and development of anti-asthma and anti-diabetic drugs, Profes-
 sor A L A Boura and Professor W R Jackson (Pharmacology/
 Chemistry) 50 000
- Australian Kidney Foundation, The
 grants-in-aid for the projects:
- Experimental models of glomerular filtration and proteinuria, Dr
 W D Comper (Biochemistry) 5 000
- Mechanisms of glomerular injury, Dr S Holdsworth (Medicine, Prince
 Henry's Hospital) 12 250
- final payment project No 9/85: Control of normal and abnormal
 development of metanephric kidney by the ureteric bud, Dr L J
 Cussen and Dr R W Yardley (Paediatrics, Queen Victoria (Medical
 Centre) 18 250
- Australian Medical Association
 1985 AMA Final Year Medical Prize 1 000
- Australian National University, The
 share of grant, Committee for Review of Australian Law Schools
 (Law) 17 315
- balance of 1984/85 grant for the project: Computer graphics ani-
 mation package for robotic action simulation, Professor R Jarvis
 (Electrical Engineering) 2 971 20 286
- Australian Nutrition Foundation
 Victorian Division
 for use in Social and Preventive Medicine 250
- Australian Psychological Society, The
 1985 APS Prize in Psychology 100
- Australian Rotary Health Research Fund, The
 for the project: Upper airway and ventilatory responses to prolonged
 nasal obstruction in newborn lambs and piglets during sleep and
 wakefulness, Dr R Harding (Physiology) 17 471
- Australian Society of Accountants
 1985 Prize in First Year Accounting 250
- 1985 Prize in Second Year Accounting 250 500
- Australian Welding Research Association
 extension of scholarship, contract no 99, for the project: Hydrogen
 stress cracking susceptibility of line pipe steels, supervised by
 Associate Professor B W Cherry (Materials Engineering) 4 100
- residual payment for contract no 69: Long term properties of ad-
 hesive joints in PVC pipes, Associate Professor B W Cherry, Dr
 H R Brown and Mr Yue Chee Yoon (Materials Engineering) 455
- 1986 grant, contract no 113: Assessment of creep damage in oper-
 ating weldments as an aid to establishing remnant life, Dr B C
 Muddle (Materials Engineering) 8 757 13 312
- Bale, E J
 for use in Aboriginal Research Centre 7

Banque Nationale de Paris towards the study of French-Australian relations (French)		500
Baxter Charitable Trust, The Percy to support work of Krongold Centre towards research study to evaluate the risk of bowel cancer in relatives of existing patients, Clinical Associate Professor F T McDermott (Surgery, Alfred Hospital)	5 000 3 000	
towards the purchase of an automated analyser (Anatomy)	1 000	9 000
Behrend, Mrs D for use in Centre for Molecular Biology and Medicine		1 000
Biotechnology Australia Pty Limited under National Biotechnology Grants Scheme for use in Department of Anatomy for the project: The cloning and production of inhibin in microbial cells, Professor D de Kretser (Anatomy)	7 500 80 769	
travel grant for Dr P Tolstoshev (Anatomy)	400	88 669
Blackmore Laboratories Limited for use in Careers and Appointments Service		20
Blake and Riggall 1985 Prize for Law of Contract (Law)		100
Blue Fin Swim School — Harold Holt Memorial Swim Centre for use in Krongold Centre for Exceptional Children		200
Bongiorno and Company (Aust) Limited 1986 Bursaries to Monash Medical Students	2 000	
1984 bursaries Faculty of Medicine	2 000	4 000
Boucher, Mr L for use in Careers and Appointments Service		75
Brockhoff Foundation Limited, The Jack for use in Centre for Molecular Biology and Medicine	50 000	
for use in Krongold Centre for Exceptional Children	6 000	
for the purchase of a cellsoft automated semen analyser, Professor D de Kretser (Anatomy)	3 000	
for the following projects: The contraceptive effect of breastfeeding; computer analysis of data, Professor R V Short (Physiology)	6 000	
The role of autacoids in vascular responses of human placenta and umbilical cord, Professor W A Walter, Professor A L Boura and Mr N M Gude (Obstetrics and Gynaecology)	5 000	
Design of a prosthetic anterior cruciate ligament, Dr B Oakes and Dr G H Edward (Anatomy)	3 000	73 000
Broken Hill Associated Smelters Pty Limited, The for first year of The BHAS Postgraduate Scholarship in Non-Ferrous Metallurgy, to investigate: Chloride-sulphate leaching kinetics of chalcocite-type materials, Miss L Lee; Associate Professor F Law- son (Chemical Engineering)	8 351	
for increase in stipend and for Union fee, research scholarship (Chemical Engineering)	748	9 099
Broken Hill Holdings Limited to assist Associate Professor F Lawson's research work (Chemical Engineering)		1 000

Broken Hill Proprietary Company Ltd, The		
support for research in fracture analysis of steel rolls, Dr J R Griffiths and Dr Y C Lam (Materials Engineering)	10 970	
support for scholarship and research into plasma coating technology, Associate Professor R McPherson (Materials Engineering)	10 970	
for the project: Fatigue and fracture toughness research, Dr J R Griffiths (Materials Engineering)	4 800	
1984 and 1985 BHP Prizes in second year Materials Engineering	400	
1985 BHP Prize in First Year Engineering	200	
for rolling mill technology research, Dr P F Thomson (Materials Engineering)	10 970	
for the project: Pretreatment of minerals using DC plasma arcs, Associate Professor Frank Lawson (Chemical Engineering) and Associate Professor R McPherson (Materials Engineering)	25 390	63 700
Buckland Foundation, The William		
for the projects: Immunoregulation in the synovial joint in rheumatoid arthritis, Dr P F Ryan (Medicine, Alfred Hospital)	8 000	
Comparative molecular biology of anaerobic bacteria of veterinary and medicinal importance, Dr R Rood (Microbiology)	5 800	
To investigate the role of the hormones FSH, LH and LHRH in the regulation of testicular function, Professor D M de Kretser (Anatomy)	4 000	
To investigate the potentially controllable non-genetic factors which control the growth size of the eyeball, Dr D Ehrlich (Anatomy)	8 000	
Measurement of Nociceptor function in patients with injury induced pain syndromes, Dr R Helme (Medicine, Prince Henry's Hospital)	16 600	
N-terminal amino acid sequencing of flavivirus-specified proteins, Dr E G Westaway (Microbiology)	8 000	
A histological investigation of the anterior eye chamber, Dr P Rogers (Obstetrics and Gynaecology)	3 060	
The role of relaxin in human reproduction, Dr D Healy (Obstetrics and Gynaecology)	25 400	
To study the pathology and immunology of rejection of whole pancreatic grafts in a rat allograft model, Professor V Marshall (Surgery, Prince Henry's Hospital)	3 000	81 860
Burchill, Sister E		
for the Elizabeth Burchill Fund (Arts)		10 000
Burroughs Limited		
1985 Burroughs Prize for Fourth Year Computer Systems Engineering		300
Callister, Mrs W J, Mr A W, Mr A D		
\$100 per annum each for a period of five years, to increase the value of the Winsome Callister Prize for Visual Arts		300
Camp Scott Furphy Pty Limited		
for use in Careers and Appointments Service		50
Carlton and United Breweries Limited		
for use in Centre for Molecular Biology and Medicine	33 750	
for use in Careers and Appointments Service	500	34 250
Cater, Mr and Mrs N		
for use in Krongold Centre		40

- Caterpillar of Australia Limited
for use in Careers and Appointments Service 380
- Celanese Research Company
1986 research grant to Genetics 70 195
additional funds due to exchange rate conversion of 1986 grant, for
the project: Genetics of gram-negative micro-organisms, Professor
B W Holloway (Genetics) 198 70 393
- Chambers, McNab, Tully and Wilson
for use in Law Library 6
- Charles, Mr S P
towards 1986 Jessup International Moot Competition (Law) 250
- City of Nunawading
for use in Krongold Centre for Exceptional Children 100
- City of Waverley
for Sunday Concert Series (Robert Blackwood Hall) 1 500
- Claremont Petroleum NL Scholarship Trust
for the project: Research into the study of reservoirs and the nature
and distribution of porosity, both on a regional and individual
reservoir basis, Mr V J Wall (Earth Sciences) 7 000
- Clark, Professor A C E
for use in Department of Paediatrics 672
- Collier Charitable Fund
microscope accessories to facilitate teaching of cell biology (Anatomy) 1 522
TV monitor and trolley, to connect to existing video-recorder, for
teaching sessions where numbers exceed 30 people (Centre for
Continuing Education) 2 338
Special Education training kits for the training of Special Education
students who are concerned with pre-school children with speech
or language disorders (Education) 521
microcentrifuge, for teaching DNA manipulative technology in prac-
tical classes (Genetics) 1 250
two digital voltmeters for teaching of fluid dynamics (Mechanical
Engineering) 720
Kodak Travel Pak Audio-visual Sound System, for developing tape
slide teaching programs; with Monash clinical departments spread
over five hospitals (Medicine, Alfred Hospital) 2 600
individual projection facilities for teaching in seminar room (Surgery,
Alfred Hospital) 2 105
towards cost of \$2 149.00 computer, to facilitate isolated tissue ex-
periments in the teaching of pharmacology (Pharmacology) 1 500 9 000
- Comalco Limited
1985 Comalco Limited Prize in Materials Engineering 300
for use in Careers and Appointments Service 200
travel grants: to meet expenses arising from Associate Professor B A
Parker's attendance at International Conference on Aluminium
Alloys, Charlottesville, Virginia, USA 1986 (Materials En-
gineering) 1 500
Professor J Polmear (Materials Engineering) 1 000 3 000
- Consulate General of the Federal Republic of Germany
to assist with advertising J S Bach Concert 23/2/86 (Robert Blackwood
Hall) 340

Coopers and Lybrand (ACT) Pty Ltd	1985 Coopers and Lybrand Prize (Accounting and Finance)	200
	for use in Careers and Appointments Service	600
Cottman, Estate of the late W T	distribution of income from the <i>Estade</i> (Medicine)	7 081
CRA Services Limited	for use in Careers and Appointments Service	250
Cyngler, A	for use in Careers and Appointments Service	20
Czarny, Mrs H	towards Polish Course (Slavic Languages)	200
Dandenong and District Hospital	for use in Faculty of Medicine	5 000
Datacraft (Aust) Pty Limited	for use in Careers and Appointments Service	150
Dawborn Steels	towards Monash University's 25-year Booklet Fund (Chemistry)	25
Deloitte Haskins and Sells	for use in Careers and Appointments Service	500
Diabetes Symposium Fund	for use by Associate Professor M K Gould (Biochemistry)	730
Digital Equipment Corporation Australia Pty Limited	1986 Prize in Computer Engineering	300
Dorf Industries Pty Ltd	for use in Zoology	400
Dow Chemical (Australia) Limited	towards costs of 25-year commemorative booklet (Chemistry)	200
Dröuin High School	for use in Careers and Appointments Service	30
Dry, Dr R	for use in Chemical Engineering	150
Duesburys	for use in Careers and Appointments Service	300
Duggan, Mr and Mrs W A	for use in Kröngold Centre for Exceptional Children	105
Duncan, Dr J S	towards publication of book <i>Ferns and Fern Allies of Victoria</i> (Botany)	501
Earthwatch Expeditions, Inc USA	for the project: Fossil dig at Dinosaur Cöye, Dr P V Rich (Zoology)	5 997
Eggleston, Estate of the Late Elizabeth	for support of Monash Orientation Scheme for Aborigines (MOSA)	460
1986		
Eggleston, Lady	to the Elizabeth Eggleston Memorial Fund	1 000
Electricity Supply Association of Australia	funding wind tunnel facility, Professor W H Melbourne (Mechanical Engineering)	400 000
	Electrical Research Board supplementary scholarship	5 000
	for the project: Micro-computer controlled GTO converter with minimum harmonic influence on the power system, Associate Professor W J Bonwick (Electrical Engineering)	7 000

for the projects: Calibration of the Victorian lightning location system, Dr D B Giesner (Electrical Engineering)	8 500	
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)	19 000	439 500
Ellison Hewison and Whitehead		
for use in Careers and Appointments Service	150	
for use in Department of English	608	750
Environment and Planning, Department of (SA Government)		
payment of koala disease survey, Professor A K Lee (Zoology)		685
Ernst and Whinney		
for use in Careers and Appointments Service		300
Essex Laboratories Pty Limited		
to Hypertension Research Fund for study on their behalf, Clinical Associate Professor B McGrath (Medicine, Prince Henry's Hospital)		10 000
Esso Australia Ltd		
first year Senior Lectureship in Geophysics (Earth Sciences)	31 500	
general grant (Earth Sciences)	3 000	
Geology Honours assistance (Earth Sciences)	2 000	
support for staff and students (Earth Sciences)	500	37 000
Evatt Memorial Foundation, Herbert Vere		
to MOSA Students Welfare Fund		7 500
Felton Bequests, The		
for research on human skin and burns, Dr B W Oakes (Anatomy)		6 000
Firkin, Professor B G		
donation to Medicine, Alfred Hospital		16 000
Firmadoor Australia Pty Limited		
for use in Careers and Appointments Service		12
Fisher, Mr F G		
to the Library		25
Flinders University of South Australia, The		
transfer of research funds to Professor P E O'Brien (Surgery, Alfred Hospital)	18 508	
1986 NHMRC grant for the project: Cytoprotection of the gastric mucosa, Professor P E O'Brien (Surgery, Alfred Hospital)	21 175	39 683
Ford Foundation, The		
for support of research on the historiography of modern Thailand at the postgraduate level, Dr D Chandler (Centre of South East Asian Studies)		5 796
Ford Motor Company of Australia Limited		
1985 Ford Prize for Third Year Mechanical Engineering		100
Friedman, Mr H		
for use in Krongold Centre for Exceptional Children		27
Gandel Charitable Trust		
for use in Krongold Centre for Exceptional Children		2 500
Gantner, Mrs N B		
for use in Krongold Centre for Exceptional Children		4 000

Garvan Institute of Medical Research			
second payment for 1986 joint NHMRC research project: The influence of hormones on the growth of human malignant melanomas, Dr D H Barkla (Anatomy)			8 670
Geraghty, Mr and Mrs M			
for use in Krongold Centre for Exceptional Children			50
Glasson, Mr E J			
honoraria donated for books (Law Library)	143		
to Law Library Donations Fund (Library)	75		
to assist Law Library with compiling index to Company and Securities Law Journal (Library)	67	285	
Guardian Assurance plc			
for use in Careers and Appointments Service			52
Guthrie, Mr J			
for use in Zoology			881
Gutteridge Haskins & Davey Pty Limited			
for use in Careers and Appointments Service			100
Hale, E J			
donation for use in Aboriginal Research Centre			7
Healy, G P and T M			
to muscular dystrophy research (Biochemistry)			100
Healy, Messrs J B, P B, R L, and V G			
for use in muscular dystrophy research (Biochemistry)			180
Hecht Trust, H and L			
towards the purchase of an automated analyser (Anatomy)		10 000	
Hewlett-Packard Australia Limited			
towards 25th Anniversary Booklet Fund (Chemistry)			250
HFC Financial Services Limited			
for use in Student Employment Office (Union)			100
Hicks, Mr G L			
establishment of postgraduate research scholarship and a visiting Fellowship (Centre for Southeast Asian Studies)			79 673
Hillview Quarries Pty Limited company of The R E Ross Trust			
to Centre for Molecular Biology and Medicine			25 000
Hoechst Australia Limited			
for use in reproductive research, Professor D de Kretser (Anatomy)			2 000
Hore, Dr T and Paget, Mr N,			
royalties from their publication <i>Non-Verbal Behaviour</i> for use in (Higher Education Advisory and Research Unit)			15
Hornsey, Mrs M H			
for research in dermatology (Medicine, Alfred Hospital)			150
Hughes, Estate of Amy Rhoda			
for use in Krongold Centre for Exceptional Children			6 000
IBM Australia Limited			
1985 IBM Prizes:			
for Third Year Electrical Engineering	150		
for Excellence in Theoretical Computer Science	150		
for Marketing	150	450	

ICI Australia Limited	
1985 ICI Prize for vacation work report	100
ICI Australia Operations Pty Limited	
for Scholarship — Miss H Gountzos (Chemistry)	1 904
consultancy fee under agreement with Department of Chemistry	2 250
part payment 1986/87 grant for the project: Biodegradation of hexachlorobenzene, Professor B W Holloway (Genetics)	22 680
for the project: Synthesis of fine organic chemicals and intermediates; stipend for Miss H Gountzos, Professor W R Jackson (Chemistry)	3 808
ICI Prize in Pharmacology	100
1984 and 1986 Prizes for vacation work report for use in Careers and Appointments Service	200
Infertility Medical Centre	500
instalment of principal and interest on ultrasound scanner purchase	31 442
1988 (Obstetrics and Gynaecology)	19 615
towards salary of M de Jong (Centre for Early Human Development)	5 000
contribution towards salary costs, technical assistant to Dr P Rogers (Obstetrics and Gynaecology)	9 000
Ingram Trust, M A	33 615
for the project: Isolation of pituitary reproductive hormones in koalas, Dr I R McDonald (Physiology)	2 000
Institute of Chartered Accountants in Australia, The	
1985 Accounting Prize	150
Institution of Engineers, Australia, The	
expenses Chemeca '86 Mr O Doblin (Chemical Engineering)	400
International Development Program of Australian Universities and Colleges	
incentive grants in recognition of the services provided by: Dr B A Collier and Mr R Newham (Chemistry)	1 500
Professor J Crossley (Mathematics)	2 000
Professor E M Laurenson (Engineering)	2 000
Professor W A Rachinger (Physics)	2 000
Associate Professor A Williams (Mechanical Engineering)	2 000
to postgraduate student Mrs Jintana Sattayasai, supervisor Dr D Ehrlich (Anatomy)	3 750
International Union of Microbiological Societies	13 250
travel grant for Professor S Fainé (Microbiology)	749
IVF Australia	
towards travel funds to attend conference of American Society of Andrology, Michigan, Mr C Yates (Anatomy)	2 100
IVF Friends	
to be added to \$4 980 already raised, to purchase: inverted and dissecting microscopes costing \$7 800; and \$3 000 respectively (Centre for Early Human Development)	5 820
Jones, Mr S L and Gleeson-Jones, Dr A	
towards E J Gleeson Memorial Prize Fund (Mathematics)	175
Kalgoorlie Mining Associates	
to cover MSc project being undertaken by Mr J Clout: Research on Kalgoorlie mineralisation, awarded to Mr V J Wall (Earth Sciences)	2 400

Keon-Cohen, Mr B A and Associate Professor P Hanks royalties paid to them as joint editors of <i>Aborigines and the Law — essays in honour of the late Elizabeth Eggleston</i> (Aboriginal Research Centre)			255
Kirby Foundation Pty Limited, James N for colorectal cancer research (Surgery, Alfred Hospital)			5 000
KMG Hungerfords 1985 Prize in Accounting	200		
for use in Careers and Appointments Service	500	700	
Lake Condah and District Aboriginal CEP for use in Aboriginal Research Centre			8
Lalor Foundation, The fellowship award, for the project: The contraceptive effect of breast-feeding, Professor R Short and Research Fellow Dr P Lewis (Physiology)			25 992
Laurenson, Professor E M for use in Civil Engineering			2 000
Law Students' Society of Monash University reimbursement of expenses for the 1986 Jessup Law Moot (Law)			2 992
Liddicoat, Mr and Mrs W for use in muscular dystrophy research (Biochemistry)			25
Linds Textiles (Wholesalers) Pty Limited for use in Krongold Centre for Exceptional Children			250
Lions International Diabetes Institute The Royal Southern Memorial Hospital for the project: Biochemical studies in non-insulin dependent diabetes mellitus, Associate Professor M Gould and Associate Professor P Zimmet (Biochemistry)			10 000
Lyons, QC, Mr J F for use in Faculty of Law			100
Mallesons for use in Careers and Appointments Service			500
Manipulative Therapy Group (Victoria) sub-group of the Australian Physiotherapy Association for manipulative therapy research being carried out by Mr P Selvaratnam; Associate Professor E F Glasgow (Anatomy)			700
Marks, Dr R for use in dermatology research (Medicine, Alfred Hospital)			20
Mattessi, A and H M for use in Krongold Centre for Exceptional Children			50
McBeth, Mr P J and Mrs B D for use in Krongold Centre for Exceptional Children			1 000
McGauran, Estate of R L for scientific research work, Professor D M de Kretser (Anatomy)			2 200
McInnes, Mr I E 1983, 1984, 1985 McInnes Prizes for clinical subjects			600
McKinnon High School for use in Careers and Appointments Service			50

Mecca, Dr R			
for use in Faculty of Medicine			125
Medding, R			
Reuben Medding Prizes 1983, 1984, 1985, 1986 in Control Engineering			200
Merck, Sharp and Dohme (Australia) Pty Ltd			
for gastroenterological research (Medicine, Prince Henry's Hospital)			10 000
Meredith, Mr W			
for Hypertension Research Fund, Clinical Associate Professor B P McGrath (Medicine, Prince Henry's Hospital)			10
Miot, Mr and Mrs G			
for use in Krongold Centre for Exceptional Children			50
Mitsui Educational Foundation			
for use in Department of Japanese			1 000
Mobil Oil Australia Limited			
for use in Careers and Appointments Service			200
Monash Ex-Committee Club			
for use in Library			150
Monash Graduates Association			
Silver Jubilee Commemorative effort: a Monash Graduates' Association Student Loan Fund to provide loans on an interest-free basis, to those students considered by the Student Financial Adviser to be most worthy (University Union)			1 200
Monash Medical Mothers' Auxiliary			
for use in Medicine	6 276		
for use in Community Medicine	500		
to the Library	1 000	7 776	
Monash University Parents' Group			
for use in:			
Botany	390		
Chemistry	400		
Education	710		
Elizabeth Burchill Room — Main Library to promote Australian studies	320		
French	600		
Geography	450		
Law	800		
Main Library	10 000		
Psychology	1 750		
Robert Blackwood Hall	420		
Social Work	60		
Visual Arts	100	16 000	
Moore, Mrs Vera			
donations to:			
Physiology	1 000		
Krongold Centre	3 500		
Library	500	5 000	
Morcom, Mr and Mrs N			
for use in Krongold Centre for Exceptional Children			100

Mucan Diagnostics Pty Limited		
consultancy fees	44 000	
visit of Professor Bhatal and Dr St John	6 000	
part payment of funds due under agreement	34 750	
travel costs Dr J Ma's trip to China, to establish clinical trials for cancer research	4 803	
research and development of cancer diagnostic kits, Professor A W Linnane (Centre for Molecular Biology and Medicine)	204 000	293 553
Muir, Sir Laurence and Lady		
for colorectal cancer research (Surgery, Alfred Hospital)		2 000
Murtagh, Dr J E, Rose, Dr A T, and Carson, Professor N E		
for purchase of furniture (Community Medicine)		2 763
Muscular Dystrophy Association of New Zealand		
equipment for muscular dystrophy research, Dr L Austin (Biochemistry)		3 000
Muscular Dystrophy Association of Victoria		
salary, research fellow Dr H Arthur; muscular dystrophy research, Dr L Austin (Biochemistry)		21 392
Myer Charity Fund, E B		
towards costs of English Postgraduate Conference (English)		350
Myer Foundation, The		
for use in Centre for Human Bioethics		8 000
Myer, Mrs P		
towards cost of fern painting by Celia Rosser, to be reproduced on cover of <i>Ferns and Allied Plants of Victoria, Tasmania and South Australia</i> (Library)		500
National Consolidated Limited		
1985 Vacation Work Report Prize in Third Year Materials Engineering		75
National Geographic Society		
for the project: The Ghastly Blanks III, Dr P V Rich (Earth Sciences)		15 112
National Mutual RBC Limited		
for use in Careers and Appointments Service		200
Neuromuscular Foundation of WA		
for muscular dystrophy research, Dr L Austin (Biochemistry)		150
Nimmer, Professor M UCLA Law School		
to Law Library		150
Norfolk Clinical Pathology Services Pty Limited		
travel grant, Professor S Faine (Microbiology)		2 025
Nowicki, Mr S and Mrs M		
towards Polish Course (Slavic Languages)		20
Nuffield Department of Clinical Medicine, Oxford		
for expenses incurred in the research programme in haemoglobinopathies, Dr D K Bowden (Anatomy)		5 903
Nunn, M A and J J		
for use in Aboriginal Research Centre		2
Nylex Corporation Limited		
1985 Vacation Report Prize	200	
1985 Materials Engineering Prize	200	400

Oakley and Associates, E A for use in Krongold Centre for Exceptional Children		10	
O'Bryan, Mr N towards 1986 Jessup International Moot Competition (Law)		20	
Parke Davis Pty Limited for use in gastroenterology research (Medicine, Prince Henry's Hospital)			5 000
Parkhill Lithgow and Gibson 1985 PLG Prizes in:			
Financial Accounting	150		
Accounting — Honours	150	300	
Peacemakers, The and no 3 Group Masonic Masters towards purchase of oxygen monitor (Centre for Early Human Development)			1 000
Petroleum Refineries (Australia) Pty Ltd for use in Careers and Appointments Service		200	
Pfizer Pty Limited for gastroenterological research, Dr J Hansky (Medicine, Prince Henry's Hospital)			14 000
Pharmacia (Australia) Pty Ltd 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
Phillips Fox for use in Careers and Appointments Service	120		
1985 Alec Masel Prize (Law)	150	270	
Podolsak, Mr A for use in Chemical Engineering			250
Polish Vocal-Dancing Ensemble in Melbourne, The 'Lowicz' for use in Polish course (Slavic Languages)			350
Potter Foundation, The Ian toward purchase of equipment: Professor D de Kretser (Anatomy)	15 000		
Dr R V Hyne (Obstetrics and Gynaecology)	2 000		
travel grants:			
Dr D Robertson (Anatomy)	500		
Dr R J Dry (Chemical Engineering)	500		
Professor M A Williams (Geography)	500		
Professor T F Smith (Physics)	500		
Dr B C Muddle (Materials Engineering)	500		
Professor B W Holloway (Genetics)	500		
Dr J F Mathews (Chemical Engineering)	500		
Associate Professor S Frydman (Civil Engineering)	500		
Dr C Tiu (Chemical Engineering)	500		
Dr C C Berndt (Materials Engineering)	500		
Dr A Prentice (Mathematics)	500		
towards meteorological field experiment, Dr R K Smith (Mathematics)	2 000	24 500	
Powles, Dr J W towards clerical assistance (Social and Preventive Medicine)			2 770

Praxa Pty Limited		
Prizes-Honours Students:		
Theoretical aspects of computing	200	
Practical section of computer course	200	400
Price Waterhouse Administration Pty Ltd		
for Price Waterhouse scholarships (Accounting and Finance)		6 000
Prince Henry's Hospital		
1986-1989 joint program with NHMRC for the project:		
Reproductive endocrinology, Professor D M de Kretser (Anatomy) Professor H G Burger and Dr J Findlay (Medical Research Centre, Prince Henry's Hospital)	318 166	
postgraduate scholarship stipends to Dr Z Zhang, Miss C Cheng and Mr G T Ooi (Anatomy, Medical Research Centre, Prince Henry's Hospital)	6 061	324 227
Prince Henry's Hospital		
Staff of Department of Medicine		
for use in Department of Medicine, Prince Henry's Hospital		400
Prince Henry's Hospital		
Surgery, Department of		
for use in Surgery, Prince Henry's Hospital		2 400
Prok International Limited		
Prize in final year Engineering		100
Queen Victoria Medical Centre		
to cover travel and registration expenses incurred in April 1986 by Dr Julia Fleming, when representing the Centre at the Third Conference on High Frequency Ventilation of Infants, at Snowbird, USA (Centre for Early Human Development)		1 000
Quota Club of Geelong		
for the purchase of equipment to be used in muscular dystrophy research, Dr L Austin (Biochemistry)	500	
muscular dystrophy research, Dr L Austin (Biochemistry)	350	850
Ramacioti Foundations, Clive and Vera		
equipment grant, Dr H Salem (Medicine, Alfred Hospital)	10 000	
for the project: Salivary melatonin profiles in blind and quadriplegic patients, Professor R V Short (Physiology)	27 090	37 090
Reckitt and Colman Pharmaceutical Division		
1986 scholarship in Pharmacology		10 000
Research Fund for Early Human Development		
for equipment, the long term use of which is to be confined to the Respiratory Medicine Research Unit, Clinical Associate Professor B C Ritchie (Medicine, Alfred Hospital)	33 167	
for use in Centre for Early Human Development	10 000	
to cover the travel and registration expenses incurred by Dr J Fleming, in representing the Centre for Early Human Development at the 3rd Conference in High Frequency Ventilation of Infants, at Snowbird, USA (Centre for Early Human Development)	2 100	45 267
Reserve Bank of Australia		
for use in Careers and Appointments Service	200	
Rural Credits Development Fund for the project:		
Cloning of footrot virulence antigens-MUR/1484;	22 793	

supplementary grant to cover mandatory salary increase Dr J Rood (Microbiology)	4 219	27 212
Rheumatism and Arthritis Association of Victoria for the projects:		
Polymorphonuclear elastase in experimental arthritis, Professor D A Lowther (Biochemistry)	1 500	
Changes in the characteristics of the core protein of the aggregating proteoglycan from articular cartilage as the result of degeneration of articular cartilage, Dr C J Handley and Dr H C Robinson (Biochemistry)	1 250	2 750
Ross Trust, The R E for the project: School support program in respect of dyslexia and specific learning difficulties, Professor M D Neale (Krongold Centre for Exceptional Children)	10 100	
towards the purchase of an ultracentrifuge, Dr A Trounson (Centre for Early Human Development)	19 000	29 100
Royal Australasian College of Surgeons for the project: Development of techniques for autologous and heterologous skin culture and grafting, Associate Professor J P Masterton and Dr R J Wale (Surgery, Alfred Hospital)		15 000
Royal Australian College of General Practitioners 1985 Community Medicine Prize	250	
towards half cost of Sony Transcriber (Community Medicine) for use in Community Medicine	250	
Royal Children's Hospital costs for study: Job satisfaction of Registered Nursing Staff at Royal Children's Hospital Dr J McArthur (Education)	620	1 120
Royal Society of Victoria for use in Zoology		400
Runciman, Mrs E to Dermatology Research Fund (Medicine, Alfred Hospital)		25
S and J Imports Pty Limited donation for use in Aboriginal Research Centre		3
Saldam, Dr A M Tan to Jubilee Fund, University Medical School (Medicine)		100
Sanwa Bank Foundation, The Research Fellowship Award to Mr D W Butler (Arts)		2 125
Schering Pty Limited for the purchase of a telepager (Social and Preventive Medicine)		539
Schneeberger, Ms Kate for Jessup Moot Competition 1986 (Law)		30
Schneider, Mrs Z M for use in Education	1 546	
for ante-natal research, Dr C Sharpley (Education)	2 503	4 049
Schutt Trust, Helen M to MOSA Students' Welfare Fund	3 000	
for equipment to be used for the project: To measure non-invasively the cardiac performance, skin blood flow and body temperature of heat exhausted marathon runners, Professor R A Westerman (Physiology)	10 000	

for research in birth defects and teratology, research fellow Ismail Kola PhD, Dr A Trounson (Centre for Early Human Development)	18 904	31 904
Scleroderma Foundation of Victoria		
towards the cost of an electro-phoresis power supply for research into Scleroderma, Clinical Associate Professor B H Toh (Pathology and Immunology)	500	
towards equipment for Scleroderma research, Clinical Associate Professor B H Toh (Pathology and Immunology)	200	700
Scott and Furphy Engineers Pty Limited		
1985 Highway Design Prize		200
Scott, Estate of the late Mr Daniel for support of the Krongold Centre for Exceptional Children	5 000	
towards purchase of automated analyser equipment (Anatomy)	5 000	10 000
Selby Anax		
towards costs of 25-year commemorative booklet (Chemistry)		150
Selwood, Dr T S		
for use in Social and Preventive Medicine		8 000
Shaw, Mr L N		
for use in Library		50
Shell Company of Australia Limited, The		
1985 Shell Prizes in:		
Chemical Engineering	100	
Administration	100	
1983 Shell Prize in Administration (Economics and Politics)	100	
towards 25th Year Booklet Fund (Chemistry)	500	800
Sidney Myer Fund, The		
Law Aboriginal Ethnic Communities curriculum project, Ms G Bird (Law)		3 000
Siemens Limited		
to the work of Careers and Appointments Service		100
Sigma (Pharmaceuticals) Pty Limited		
1985 Sigma Award in Neonatal Paediatrics		100
Simon, Sally M		
for use in Aboriginal Research Centre		10
Simson Education Trust, Stuart		
half share of income to be applied to Stuart Simson Scholarship		1 400
Sinclair Knight and Partners		
for use in Careers and Appointments Service		50
Slifierz, Mr R		
towards Polish Course (Slavic Languages)		10
Solomonson, Mr and Mrs B M		
towards the purchase of books for departmental library (History)		176
Sopilko, Ms J		
towards Polish Course (Slavic Languages)		50
Southwick, Mr G		
for research into microsurgery and correction of male infertility, Dr P Temple-Smith and Mr G Southwick (Anatomy)		600

Springvale Legal Service			
salary for second Law position (Law)		6 490	
second casework position for 3 months of 1986 (Law)		6 292	
to cover costs of second Springvale position July-September 1986 (Law)		6 118	18 900
St Vincent's Hospital			
balance of 1985 NHMRC grant for the project: Pituitary growth factors and their role in cell proliferation, Professor M T Hearn (Biochemistry)		13 020	
first half yearly instalment 1986 NHMRC grant for the project: The influence of hormones on the growth of human malignant melanomas, Dr D H Barkla and Dr P Tutton (Anatomy)		8 670	21 690
Stabb, Mr B E			
for use in Careers and Appointments Service			20
Staff Members of Psychological Medicine, Department of			
for use in Psychological Medicine			398
State Employed Psychiatrists' Association			
1984 and 1985 Prizes — Fourth Year Medicine			200
Steel Mains Pty Limited			
1985 Final Year Prize in Engineering			250
Stewart Memorial Fund, Sir Alexander			
award to student Mr M Cohn (Engineering)		1 600	
1986 contribution to Scholarship Award (Engineering)		3 650	5 250
Street, Dr A M			
for use in Medicine, Alfred Hospital			255
Sunshine Foundation			
for purchase of equipment for diabetes research, Associate Professor R A Westerman (Physiology)		1 426	
for use by Dr R J Keller (Civil Engineering)		450	
for use by Dr B Chapman (Physiology)		4 356	
for dinosaur cave project, Dr P Rich (Earth Sciences)		2 000	8 232
Surgery, Department of Alfred Hospital Perfusion Services			
to be used in research into liver transplantation (Surgery, Alfred Hospital)			200
Symposium on Cardiac Doppler			
for use by Associate Professor M K Gould (Biochemistry)			1 798
Tan Saldam, Dr A M			
for use in Faculty of Medicine			100
Thomas Baker (Kodak) Alice Baker and Eleanor Shaw Benefactions			
for use in Centre for Molecular Biology and Medicine			40 000
Thorburn, Professor G D			
for use in Department of Physiology			6 139
Tileman (A/sia) Pty Limited			
1985 Tileman Prize for Civil Engineering			100
Touche Ross and Co			
1985 Prizes in:			
Accounting 101		100	
Advanced Taxation		100	
Auditing & Systems		100	
Income Tax Law		100	400

United Nations Educational, Scientific and Cultural Organisation UNESCO			
final payment UNESCO/ICSU Fellowship Dr Z Al-Doori (Genetics)			774
University Microfilms International			
proceeds from royalties; booklet (Law)			66
University of Melbourne, The			
towards the 1986 costs of a lecturer (Mathematics)	36 516		
NHMRC reimbursement of salary, project: Study of non-pharmaco- logical treatment of patients with mild hypertension, (Dr P G Matthews (Medicine, Prince Henry's Hospital)		13 299	
subsidy for the Australian Journal of French Studies		400	
first instalment of 1986 grant from CTEC for the Key Centre for Statistical Sciences (Mathematics)	19 696		69 911
University of Tasmania			
reimbursement of expenses: NERDDC grant for the project: Catalytic development for the upgrading of brown coal liquids, Dr F P Larkins (Chemistry)			4 030
Utah Foundation			
1986 grant for research (Microbiology)			5 000
Various donors:			
to Centre for Commercial Law and Applied Legal Research			198 180
to Centre for Molecular Biology and Medicine			122 693
to Jessup Moot Competition (Law)			7 128
to Jubilee Fund, Faculty Medicine			
Clark, Professor A G L	1 000		
Dargaville, Dr R M	300		
James Harkness Pty Ltd	500		
Taverner, M G and A Y	75		1 875
for use in Medicine			
Cacek Pty Ltd, J	50		
Carey, Dr R	100		
Clarke, Dr G L T	20		
Clarke, Dr J	50		
Greaves, Dr G & N	100		
Habersberger, Dr P G	250		
Hewson, Dr and Mrs	10		
Holmes Pty Ltd, Peter W	100		
Jedynak, Dr and Fitzgerald, Dr	100		
King, R and L	50		
Madden, Dr P J	100		
Martin, Dr M	100		
Oldmeadow, M J and L B	100		
Panetta, Dr F	250		
Prince Henry's Hospital	1 000		
Schofield, Dr P W	250		
Slutzkin, Dr A J	100		
Travers, Dr R L	1 000		3 730
for Membership of Institute for the study of French/Australian Re- lations			1 200

for Monash University Orchestra percussion instruments and music (University Union)		
Bellamy, Dr C J	200	
Glue, Anna	10	
Provan, Mr J	50	260
to Robert Blackwood Hall Harpsichord Appeal		17 340
to Study Abroad Program (French)		
Auguste, Mrs M R	10	
Burston, Dr J	25	
Maclean, Mr & Mrs M	20	
Nettlebeck, Dr C W	20	
Rivalland, Mrs G	5	80
Victoria Law Foundation		
towards 1984-85 grant (Law Library)	28 000	
first instalment 1985/86 grant (Law Library)	9 000	
final payment Aboriginal Ethnic Communities' project, Professor R Baxt (Law)	4 108	
towards research project: Audio and video records of police inter- views, Mr D Thomson (Psychology)	7 730	48 838
Victorian Medical Postgraduate Foundation Inc		
for use in Careers and Appointments Service	25	
update in Dermatology Course, November 1985 (Medicine, Alfred Hospital)	3 613	3 638
Victorian Nursing Council		
third instalment of research grant 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
Wallis and Associates Pty Limited, I		
to supplement the national research fellowship of Mr T Pollock; Associate Professor J Hinwood (Mechanical Engineering)		5 000
Walsh-Richardson, Mr and Mrs J		
for use in Krongold Centre for Exceptional Children		200
Ward, H A and H N		
donation for use in Aboriginal Research Centre		4
Water Research Foundation of Australia		
final payment under grant 207:	4 000	
initial payment under grant 223 for the project: Evaluation of sul- phide producing capacity of sewage using a rotating drum bio- logical reactor, Dr G A Holder (Chemical Engineering)	2 000	6 000
Were and Son, J B		
for use in Krongold Centre for Exceptional Children		1 000
Westall Primary School		
for research by Monash Teachers' Centre, Mr J Kelly (Education)		500
Western General Hospital Hypertension Unit		
for hypertension research (Medicine, Prince Henry's Hospital)		10 000
Western Mining Corporation Limited		
for use in Earth Sciences	4 000	
1985 WMC Prizes:		
for the Third Year student showing the greatest proficiency in process operations and design (Chemical Engineering)	100	

for the Fourth Year student showing the greatest proficiency in subjects concerned with mineral processing and extractive metallurgy (Chemical Engineering)	100	4 200
Westpac Banking Corporation 1986 Westpac PhD scholarships (Law)	9 167	
(Engineering)	9 167	18 334
Whip, Mrs F for use in Krongold Centre		50
White Bequest, Joe to Library		1 000
White, Miss I M for use in Aboriginal Research Centre		1 000
William Boby and Company 1985 WB Prize in Chemical Engineering		350
Wilson Electric Transformers Co Pty Ltd 1984 Wilson Electric Transformer Prize 1984, 1985 Jack Wilson Prizes		900
Wilson, Dr and Mrs I R to Dr E Elbing Memorial Fund (Chemistry)		100
Wilson, Estate of the late Edward towards lectureship in dermatology (Medicine, Alfred Hospital)		5 000
World Health Organisation for research on fertility promoting agents, Professor D M de Kretser (Anatomy)	3 578	
trainee grant for Dr Wang Zhong-Xiong; Professor D M de Kretser (Anatomy)	3 436	7 014
Zenford-Ziegler Pty Limited for use in Careers and Appointments Service		25
Zurak, Mr T and Mrs V towards Polish Course (Slavic Languages)		300

Commonwealth Government

Aboriginal Affairs, Department of donation for use in Aboriginal Research Centre		8
operating costs MOSA	13 300	
1986/87 interim grant for MOSA (Monash Orientation Scheme for Aborigines)	13 400	
operational and administrative costs (Aboriginal Research Centre)	40 900	67 600
Arts Heritage and Environment, Department of first instalment 1986 for the project: A taxonomic revision of fos-sombronia and other liverwort genera in Australia, Dr GAM Scott (Botany)		13 252
Australia-China Council supplementary funds for visitor Ma Ning, to cover expenses associated with her work on Chinese/Western cinema: film and video-tape hire, equipment, conference travel etc, while working on doctorate in film studies (Visual Arts)		2 200

Australia-Japan Foundation to the teaching programs at Monash Japanese Centre, Tokyo, (Japan- ese)	30 576
Australian Development Assistance Bureau towards cost of equipment to support Mr A Abbas' research program; Dr T J Hicks (Physics)	3 755
Australian Institute of Nuclear Science and Engineering AINSE studentship maintenance costs of studentship	10 396 1 000
contribution towards costs incurred for rubidium carbonate and com- puter searches, Mr D Cookson (Physics)	1 000 12 396
Australian National Parks and Wildlife Service under consultancy agreements, for the projects: Research into Chlamydiaosis in natural populations of the Koala in the wild in Victoria; first phase, Associate Professor A K Lee (Zoology)	40 000
The role of terrestrial crabs in structuring rainforest communities in Christmas Island National Park, Christmas Island, Dr D J O'Dowd and Dr P S Lake (Zoology)	3,000 43 000
Australian Railways Research and Development Organisation for use in Careers and Appointments Service	50
Australian Road Research Board for use in Careers and Appointments Service	100
Australian Wool Corporation Wool Research Trust Fund postgraduate scholarship, Mr D Harris, for the project: Factors af- fecting the demand for wool as a factor input, Dr B.A Goss (Economics)	8 566
1985/86 grant for the project O4H: Studies of epidermal growth factor in the sheep: pharmacokinetics of administered and en- dogenous epidermal growth factor, Professor G D Thorburn (Physiology)	35 618
1985/86 grant, project UMO 1E: Semi-strong form efficiency of the Australian wool market,	5 689
supplementation of salaries for extended period of grants, Dr B.A Goss (Economics)	3 750
1985/86 grants for the project: Physiological studies on tactile comfort of wool, Dr R D Helme (Medicine, Prince Henry's Hospital)	10 511
Associate Professor Dr R A Westerman (Physiology)	25 694
salary supplementation and academic increase: Dr R.A Westerman (Physiology)	4 817
Dr R D Helme (Medicine, Prince Henry's Hospital)	1 703
for the project UMO 2P: Use of recombinant DNA technology, to produce a multivalent footrot vaccine, Dr J Rood (Microbiology)	8 548
for project UMO 2H: Investigation of the physiological basis of elec- tro-immobilisation in sheep, Professor G D Thorburn (Physiology)	66 984
and Professor D G Lampard (Electrical Engineering)	171 880
Committee to review Australian Studies in Tertiary Education for project: The holdings of Australian creative literature published between 1980-85 in the libraries of tertiary education institutions, Profes- sor J P Whyte (Graduate School of Librarianship)	2 852

Commonwealth Serum Laboratories		
for parvovirus antigen research, Professor A W Linnane (Centre for Molecular Biology and Medicine)	30 000	
for staffing and equipment of a histology/immuno-histochemistry laboratory, Dr P Rogers (Obstetrics and Gynaecology)	13 954	
for the project: Initial work on the expression of canine parvovirus antigens using recombinant DNA techniques, Professor A W Linnane (Centre for Molecular Biology and Medicine)	10 000	
Commonwealth Tertiary Education Commission		
for the project: Study of mature age entrants following higher education, Dr T Hore and Dr L H T West (Higher Education Advisory and Research Unit)	15 423	
for higher degree study in the Faculty of Education, Professor P J Fensham (Education)	7 310	22 733
CSIRO		
for the project: Identification and growth requirements of bacteria responsible for enhanced phosphorus removal, Dr R Bayley and Dr J May (Microbiology)	25 000	
Australian Telecommunications and Electronics Research Board (ATERB) contribution to Computer Science	500	
maintenance grant for overseas travel 1986: Mr P J Stuckey (Computer Science)	2 000	
second year payment postgraduate scholarship, Mr P J Stuckey (Computer Science)	5 000	
for the project: Computer graphics animation package for robotic action simulation, Professor R A Jarvis (Electrical Engineering)	14 000	
Viscosity of heavy metal glasses and their influence on fibre drawing characteristics, Dr T Sridhar (Chemical Engineering)	7 000	
Australian Computer Research Board for the projects: Image processing for robotics applications using stereoscopic moving camera and zoom lens, Associate Professor W A Brown and Dr K C Ng (Electrical Engineering)	4 500	
Multiprocessor implemented in VLSI, Dr K E Forward and Dr T S Dillon (Electrical Engineering)	3 000	61 000
CSR Chemicals Limited		
1986 CSR Chemicals Prize (Chemistry)		200
Defence, Department of		
for the project: Synthesis and characterisation of chelate compounds, Professor B O West (Chemistry)	30 000	
Economic Planning Advisory Council		
for Australia/US Trade Policy Study (Economics)		31 180
Education, Commonwealth Department of		
1985/1986 part payment for the project: Students' reasons for discontinuing their studies, Dr T Hore and Dr L West (Higher Education Advisory and Research Unit)	34 646	
TAFE component of the above project	6 391	
to Monash Orientation Scheme for Aborigines (MOSA)	75 501	
study allowance Mr A B Brown (Monash Orientation Scheme for Aborigines)	624	
Aboriginal Study allowance (Aboriginal Research Centre)	290	117 452

Education, Ministry of Commonwealth Schools' Commission			
for pilot project on the application of calculators to Mathematics teaching, Dr D Blane (Mathematics Education Centre)	2 500		
for Curriculum Development Centre project, Dr D Blane (Mathematics Education Centre)	3 413	5 913	
Employment and Industrial Relations Department of			
balance for research project: National Review Committee on Aboriginal employment and training programs, Ms E Fesl (Aboriginal Research Centre)			1 759
Foreign Affairs, Department of			
International Year of Peace grant (Library)	950		
for visit of Mr E N Gordeev, official exchange lecturer from Leningrad State University, 1986, under Australia/USSR Academic Exchange Agreement(Slavic Languages)	3 967		
towards cost of travel to Canberra Mr L H Parrott and Mr B Barwood (Careers and Appointments Service)	169	5 086	
Immigration and Ethnic Affairs, Department of			
for the project: Ethnic radio phone-in project April-June 1986, Professor M Clyne (Centre for Migrant and Intercultural Studies)			6 300
Industry, Technology and Commerce, Department of			
Commonwealth Government share of Teaching Company Scheme project, Associate Professor P Dransfield (Mechanical Engineering)			10 000
Industry, Technology and Resources, Department of			
for purchase of ion beam thinning equipment (Materials Engineering)			15 000
Labour Market Research, Bureau of			
for the project: The introduction of computerised photocomposition in a Melbourne newspaper: A case study of technology change, job satisfaction and the meaning of work, Dr G D Bouma for Mrs R Reed (Anthropology and Sociology)			900
Marine Sciences and Technologies Grants Scheme			
for the projects:			
Studies on the growth and reproduction of kelp <i>durvillea</i> , Dr M N Clayton and Dr N D Hallam (Botany)	15 975		
Taxonomy and reproduction of selected genera of the dictyotales (phaecophyta), Dr J A Phillips and Dr M N Clayton (Botany)	20 550		
Proteolysis amino acid utilization and ammonium production in salt marsh sediments, Mr P I Boon (Botany)	6 293	14 273	
Biological and taxonomic studies on antarctic brown algae, Dr M N Clayton (Botany)	4 327		
Longevity and age structure of the antarctic krill, <i>Euphausia superba</i> Dana, Dr G Ettershank (Zoology)	18 750		
Wind, wave and mooring response data from Bass Strait, Associate Professor J Hinwood, Dr G T Lleonart and Dr D R Blackman (Mechanical Engineering)	12 750		
Shelf wakes and eddies, Professor B R Morton and Dr J H Middleton (Mathematics)	16 450	95 095	

National Health and Medical Research Council		
dependent child allowance July-December 1985 to medical post-graduate research scholar (Medicine, Prince Henry's Hospital)	331	
academic back pay April 1984 to April 1985	50 270	
for C J Martin Fellowship: Cytological and hormonal studies of testicular function, Dr J Kerr (Anatomy)	6 970	
superannuation payments, continuing project: Non-cholinergic non-adrenergic neurotransmission in the intestine, M E Robinson, K A Broben, Dr R A Bywater (Physiology)	1 895	59 466
Overseas Telecommunications Commission, The		
contract 73588: Teleconferencing studies, Dr T J Triggs (Psychology)		26 701
Parliament Library, Canberra		
for use in Aboriginal Research Centre		8
Primary Industry, Department of Rural Industry Research Funds — Poultry Research Advisory Committee 1985/86 grant for the project: Relationship of serum cholesterol response to dietary egg yolk to low density lipoprotein receptor structure polymorphism, Professor J W Goding (Pathology and Immunology) and Dr P J Nestel (CSIRO)	4 250	
Australian Chicken Meat Research Committee second half yearly payment of 1985/86 grant for the project: Monoclonal antibodies in study of chicken major histocompatibility complex and disease resistance, Dr H A Ward (Pathology and Immunology)	2 605	6 855
Resources and Energy, Department of National Energy Research Development and Demonstration Program (NERDDP) project 686:		
The direct hydrogenation of brown coal in continuous flow catalytic reactor,	82 018	
reimbursement of expenses. Professor W R Jackson, and Dr T Sridhar (Chemistry)	20 699	
project 348: Demonstration of heat recovery in industrial drying processes, Mr C W Ambrose (Mechanical Engineering)	10 153	
project 463: Predicting outcomes of energy conservation policies applicable to households, Dr D J Crossley (Graduate School of Environmental Science)	3 745	
reimbursement of expenditure for the project: Dispersion of atmospheric discharges in complex terrain and stability,	94 246	
reimbursement of expenses. Professor W H Melbourne (Mechanical Engineering)	13 652	
for the project: Australian policies in the liquid fuels and natural gas sector balance of funds due	8 906	
supplementary grant, Professor M G Porter (Centre for Policy Studies)	11 229	
Hydrocarbon reservoir quality in the Cooper Eromanga Basin, Mr V J Wall and Dr R T Gregory (Earth Sciences)	25 004	
project 685: Flow improvers for waxy crudes and middle distillates, Dr G A Holder (Chemical Engineering)	26 793	
reimbursement of expenditure to June '86 — Modelling of coal liquefaction reactions, Dr T Sridhar and Professor J Agnew (Chemical Engineering)	145	

- project 577: Design of a low energy indoor heated swimming pool, Professor T F Smith and Dr J L A Francey (Physics) 9 043
- 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 and Dr R Marchant (Zoology) 9 806 315 439
- Science, Department of Meteorology, Bureau of Geophysics for use in the Geophysical Fluid Dynamics Laboratory (Mathematics) 1 500
- National Research Fellowships Scheme for the projects: Wave and current loads on offshore structures, Mr T J Pollock and Associate Professor J Hinwood (Mechanical Engineering) 28 433
- The mechanism of adhesion of plasma sprayed ceramic coatings to metallic materials, Dr G N Heintz and Associate Professor R McPherson (Materials Engineering) 24 463
- Evolution of the higher vertebrates with emphasis on Australian Taxa: a Palaeo-biochemical approach, Dr M Rowley, Dr P V Richardson and Dr T H Rich (Earth Sciences) 25 214
- Visual processing of sentences, research fellow Dr L Stowe (Psychology) 28 838
- Energy economy in drying brown coal and other materials, Mr Li Xi-Guang (Chemical Engineering) 50 204
- Pregnancy and parturition in the marsupial macropus eugenii, Dr G Shaw and Professor R V Short (Anatomy) 20 365
- Magnetic properties of inorganic and bioinorganic compounds, Dr E N Bakshi and Dr K S Murray (Chemistry) 22 408
- Theoretical investigation of flood flow in rivers, Dr B Perera and Dr R Keller (Civil Engineering) 12 966
- Preparation and characterisation of halide glasses for telecommunication and remote sensing fibres, Dr S Inoue and Dr D R MacFarlane (Chemistry) 15 502
- Queen Elizabeth II Awards, QEII Fellowship, Dr I Cooke (backpayment of salary costs November 1985 to June 1986 (Centre for Early Human Development)) 39 836 900 270 629
- Telecom Australia towards International Symposium on Transport, Communication and Urban Form, May 1987 (Civil Engineering) 2 000
- for Stage 1 of Contract no 69761 for the project: R and D investigation of trends in lithium niobate optical switch technology, Dr L N Binh (Electrical Engineering) 5 000 7 000
- Transport, Ministry of contribution to International Symposium on Transport, Communication and Urban Form (Civil Engineering) 3 000
- Water Research Foundation of Australia final payment under grant 207: Evaluation of sulphide producing capacity of sewage using a rotating drum biological reactor, Dr G A Holder (Chemical Engineering) 4 000 2 000 6 000

State Government

Conservation, Forests and Lands, Department of for the projects: Breeding and feeding biology of the little penguin, Professor J M Cullen (Zoology)	64 900	
Status of Malleefowl in Mallee shrubland, with particular reference to Wyperfeld National Park, Professor J M Cullen (Zoology)	8 000	
Dietary preferences and population dynamics of the Western Grey Kangaroos,	600	
additional funding Dr G D Sanson (Zoology)	2 000	
additional grant for the project: Assessment of interacting effects of drought, food and fire on shrublands, heath and woodlands at Wyperfeld National Park, Dr T P O'Brien (Botany)	1 000	76 500
Education — Victoria, Ministry of		
for: Special education program, Dr N C Nettleton (Education)	4 000	
salary subsidy (Krongold Centre for Exceptional Children)	47 149	
balance of 1986 Special Education grant (Krongold Centre for Ex- ceptional Children)	61 785	112 934
Government of Victoria		
Tertiary Education Assistance to Students	74 500	
contribution to Centre for Commercial Law and Applied Legal Re- search	25 000	99 500
Health Commission of Victoria		
salary and associated costs, Chair in Psychological Medicine, Royal Park, Professor B S Singh (Psychological Medicine)	124 147	
expenses, Professor B S Singh (Psychological Medicine)	33 067	
for the project: Work influences on health-related behaviour of white collar workers, Clinical Associate Professor G A Ryan (Social and Preventive Medicine)	10 000	
NHMRC program grant — Dr H G Burger and Professor D M de Kretser, for the project: Reproductive endocrinology; payment of Study Leave, Dr D H Robertson (Anatomy)	3 150	
for the project: Prognostic indicators for the development of AIDS or related diseases in haemophiliacs, Dr M A Barnett, Dr K M McGrath, and Hon Associate Professor I D Gust (Pathology and Immunology)	35 000	
back pay for dependents' allowance, medical and dental postgrad- uates (Medicine, Prince Henry's Hospital)	156	
Aids Research Risk factors associated with HTLV-III virus in pros- titutes, Dr I Denham (Microbiology)	1 627	
Risk factors associated with HTLV -III virus in intravenous drug users, Dr I Denham (Microbiology)	1 627	
1986 NHMRC Medical and Dental Undergraduate Scholarships: to be shared equally between three students admitted to candidature for the degree of Bachelor of Medical Science in 1986	2 700	
Commonwealth and State Governments' National Campaign against drug abuse awarded to the University for: Drug education survey in Victorian secondary schools, Dr J R Northfield (Education)	48 000	

Service use and program experience of ethnic families with intellectually disabled member, Dr A C Jackson (Centre for Migrant and Intercultural Studies)	5 600	265 074
Melbourne and Metropolitan Board of Works for the projects:		
Headworks and transfer mathematical model application of an optimisation technique, Dr G Codner (Civil Engineering)	4 700	
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)	5 550	10 250
Mental Health Research Institute of Victoria, The for use in Psychological Medicine		8 000
Planning and Environment Victoria, Ministry of contribution to International Symposium on Transport Communication and Urban Form (Civil Engineering)		1 000
State Electricity Commission of Victoria towards travel expenses, tertiary institutions' research payments scheme: Latrobe Valley airshed study, Ms Graf and Dr R K Smith (Mathematics)		1 000

Commonwealth Government Research Grants

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

Investigator	Project Title	Grant \$
ARTS		
<i>Anthropology and Sociology</i>		
Dr E Willis	Health and safety at work: a socio-historical analysis	17 500
<i>English</i>		
Dr P H Ayres	The authorised biography of Malcolm Fraser	5 200
Dr H H R Love	Biographical study of James Edward Neild, (1824-1906)	5 509
Miss B M Niall	Biography of Martin Boyd	7 000
Associate Professor W B Steele	Textual and editorial studies in D H Lawrence, towards an edition of <i>England, my England and other stories</i>	5 000
<i>Geography</i>		
Dr I M Head	Prehistoric environments and human exploitation of Lake Condah, southwestern Victoria: a pilot study	5 000
Dr A P Kershaw	The vegetation and environmental history of northeastern Australia	11 018

Dr A P Kershaw and Dr J A Peterson	Quaternary history of the western plains, Victoria	10 250
Dr J A Peterson	Quaternary geology and isostatic recovery of the Vestfold Hills Antarctica phase 2	2 000
Dr N J Tapper and Dr D L Dunkerley	Modelling effects of environmental modifications on river water temperatures: a pilot project	5 573
Professor M A J Williams and Dr D A Adamson	Late cainozoic environments: 5 million years ago to present	67 200
<i>German</i>		
Associate Professor M G Clyne	Cross cultural comparison of academic discourse	10 044
<i>History</i>		
Dr D T Garrioch	The social and economic development of the Faubourg St Marcel in Paris from 1700-1820	5 410
Dr F W Kent	Florence in the time of Lorenzo de' Medici	3 000
<i>Linguistics</i>		
Associate Professor J T Platt	The indigenisation of English with particular reference to two multilingual nations: Singapore and Fiji	15 000
<i>Music</i>		
Dr M J Kartomi	Music cultures of the Batak, Gayo and Alas Peoples, Sumatra	21 923
<i>Slavic Languages</i>		
Professor G J Marvan	Theoretical framework of Slavic inflection	10 000

ECONOMICS AND POLITICS

<i>Econometrics and Operations Research</i>		
Dr M L King	Specification error in econometric models	16 908

EDUCATION

Dr R F Gunstone	Analyses of physics learning with two closely related emphases: the process of schema change in learning and successful problem solving strategies	15 000
Dr G C Leder	The relationship between teachers' wait time to questions, subject area, sex and achievement level of the students	19 850
Professor R J W Selleck	Biography of Sir James Kay-Shuttleworth (1804-1877) called 'the founder of the English system of popular education'	5 020

ENGINEERING

Chemical Engineering

Dr J R G Andrews, Dr C Tiu and Dr P H T Uhlherr	Prediction of selectivity of particle separations in suspensions containing significant quantities of very fine particles	8 000
Mr 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 Dr J F Mathews	Refining of low melting point metals Catalytic removal of oxygen from Victorian brown coal	20 300
Professor O E Potter and Dr T Sridhar	Chemical engineering of liquid-phase organic oxidations	13 000
Professor O E Potter	Fluidised bed reactors with internals	16 000
		35 158

Civil Engineering

Dr P LeP Darvall	Softening in reinforced concrete beams and frames	12 000
Associate Professor P Grundy	Effect of moving loads on deck structures	13 000
Dr R E Melchers	Human error in structural reliability	12 000
Professor N W Murray	Development and experimental verification of a method for designing crashworthy structures	30 000
Dr G I N Rozvany	Optimisation of structural layouts by analytical methods	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	5 000
Dr K E Forward and Dr T S Dillon	Mathematical modelling of real-time multiple computer systems	26 000
Dr R A Jarvis	Intelligent sensory-based robotics	35 682
Dr D L Morgan	Comparative studies of fast tension transients in single vertebrate muscle fibres	11 075

Materials Engineering

Associate Professor B W Cherry	The initiation of stress corrosion cracking by low frequency cyclic straining	25 265
Dr G H Edward	Deformation mechanism mapping of polymers	16 000
Dr J R Griffiths and Dr Z H Stachurski	Analysis of isothermal transformation kinetics	12 300
Associate Professor R McPherson	Microstructural development in alumina-silica- zirconia ceramics prepared from glasses	22 927
Dr B C Muddle	The structure and properties of rapidly quenched crystalline alloys	24 000

Associate Professor B A Parker, Dr B C Muddle and Professor I J Polmear	Analytical electron microscopy of materials	30 000
Associate Professor B A Parker	The production structure and properties of strip cast alloys	12 000
Dr P F Thomson	Prediction of the profile of hot rolled steel slab after edge rolling	10 418
<i>Mechanical Engineering</i>		
Associate Professor J B Hinwood and Dr T T Nguyen	Kinematic properties of breaking waves	8 000
Professor W H Melbourne	Aerodynamic instabilities, loading and response of bluff bodies in a turbulent flow	40 000
LAW		
Professor R Baxt	A new form of incorporation for small businesses	20 000
MEDICINE		
<i>Anatomy and Physiology</i>		
Professor R V Short	The control of reproduction in female marsupials	41 155
<i>Biochemistry</i>		
Associate Professor H B Lukins and Professor A W Linnane	Biogenesis of mitochondria	32 500
Associate Professor S Marzuki and Professor A W Linnane	Structure and function of mitochondrial membranes	28 750
Associate Professor B W Preston and Dr W D Comper	Diffusive and convective transport in biological and model multicomponent systems	26 500
<i>Centre for Human Bioethics</i>		
Professor P Singer and Dr H Kuhse	Life or death choices for defective newborns	20 000
<i>Centre for Molecular Biology</i>		
Dr P Nagley and Associate Professor H B Lukins	Expression in yeast nucleus of genes encoding hydrophobic proteins targeted to mitochondria	12 700
Dr P Nagley	Informational macromolecules in nucleocytoplasmic interactions	28 750
<i>Microbiology</i>		
Dr R C Bayly and Dr R A Skurray	Regulation of the microbial degradation of xylenols and cresols	20 300

Dr J I Rood	Cloning and genetic analysis in clostridium perfringens	11 700
Dr R A Skurray	Molecular analysis of the conjugative F plasmid	39 252
<i>Pathology and Immunology</i>		
Dr D C Poskitt and Dr M A Barnett	The development of lymphoid tissues and immunity in marsupial mice	10 400
<i>Physiology</i>		
Associate Professor R A Westerman	Small cutaneous nerve function — mechanisms of prickle and itch	15 500
SCIENCE		
<i>Botany</i>		
Dr M N Clayton	Studies on the reproductive biology of brown algae	17 350
<i>Chemistry</i>		
Dr D J Bannister	Ionically conducting solid polymer — alkali metal salt complexes	6 250
Professor R D Brown	Weak interstellar masers	10 000
Professor R D Brown and Dr P D Godfrey	Molecules in space — phase 3	78 221
Dr R F C Brown and Dr F W Eastwood	Pyrolytic generation of transient organic molecules	11 000
Dr R F C Brown and Dr F W Eastwood	Mechanism of aryne formation from aromatic anhydrides	21 891
Dr D J Collins	Studies of enolic ortho esters	25 500
Dr G B Deacon	Lanthanoid and actinoid chemistry	17 000
Dr G B Deacon	Syntheses of organometallics and organoamidometal compounds by decarboxylation reactions	13 000
Associate Professor R S Dickson	Binuclear complexes — versatile centres for organic transformations	13 000
Dr K G Dyall	Relativistic atomic electronic structure and rearrangement processes	5 000
Dr B M Gatehouse	Crystalchemistry of the solid state	22 835
Dr P D Godfrey, Dr S R Wilson 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	18 500
Dr D MacFarlane and Dr B A W Collier	Impedance electrochemistry	11 000
Dr R J S Morrison	Laser multiphoton ionisation spectroscopy of beam cooled free radicals	19 120
Dr K S Murray	Magnetic properties of inorganic and bioinorganic compounds	25 088

Dr P Perlmutter	New synthetic vaccines based on simulated antigen surfaces attached to synthetic porphyrin templates	21 500
Associate Professor I D Rae	Thermal degradation of deuterium-labelled vinyl polymers	11 000
Professor B O West	Sulfur and nitrogen coordination to metals influence on metal spin states reactivity and oxygen atom transfer	14 000
Dr J K Yandell	Synthesis and redox properties of metalloprotein models	11 500
<i>Computer Science</i>		
Mr J Jaffar and Dr J-L Lassez	Programming with equations in logic programs	22 000
Dr J Rosenberg, Dr D Abramson, and Professor J L Keedy	Monads-PC — A workstation for software engineering (operating system)	17 400
Professor C S Wallace and Dr D A Abramson	Capability-based multiprocessor	29 490
<i>Earth Science</i>		
Dr M S Bloom	Experimental study of mineral solution equilibria: molybdenum complexing in hydrothermal solutions	10 000
Dr R A F Cas	Red rock and bridgewater — multiple vent quaternary volcanic centres and the influence of phreatomagmatic activity	7 500
Dr R A F Cas, Dr D R Gray and Dr C L Fergusson	Tectonic style and significance of the ordovician system eastern Victoria	29 706
Dr D R Gray	The analysis of strain and of incremental strain history in the ordovician silurian of Victoria — implications for tectonic development	20 000
Dr R T Gregory	Stable isotope studies of Archean Hydrothermal Systems, Pilbara Block, Western Australia	22 000
Dr I A Nicholls	Partitioning of rare earth elements between clinopyroxenes and basaltic liquids as a function of pyroxene composition	16 000
Dr I A Nicolls	Petrology/geochemistry of active calcalkaline volcanoes, Java, Indonesia	3 000
Dr P V Rich and Dr T H Rich	Evolution of the higher vertebrates with emphasis on Australian Taxa	11 000
Mr V J Wall	Feldspar-quartz-melt relations and their implications for crustal anatexis and felsic magma evolution	9 000
<i>Genetics</i>		
Professor B W Holloway, Dr A E Morgan and Associate Professor V Krishnapillai	Genetic analysis of pseudomonas and its role in the genetic exploration of selected gram negative bacteria	51 250

Associate Professor V Krishnapillai	Genetic analysis of plasmid promiscuity	13 000
Dr S W McKecknie	Genetic variation in alcohol tolerance and alcohol dehydrogenase in a winery population of <i>Drosophila melanogaster</i>	24 827
Dr D R Smyth and Ms A Lavelle	A DNA sequence element dispersed through the genomes of <i>Lilium</i> species	10 500
<i>Mathematics</i>		
Dr C J Ash	Recursive model theory	6 800
Professor J N Crossley	Recursive content of algebra and analysis	8 000
Dr T E Hall	Automata, languages, machines and inverse semigroups	6 000
Dr J J Monaghan	Hypersonic flow	10 000
Professor B R Morton	Fluid flow past surface-mounted obstacles	10 000
Professor B R Morton	Dynamics of tropical cyclones	7 500
Dr R K Smith	The North Australian cloud line	15 000
Dr R K Smith and Dr M A Page	Southerly buster cold fronts	4 500
<i>Physics</i>		
Associate Professor J D Cashion	A study of the structure and magnetic properties of solids using the Mossbauer effect	54 339
Dr T R Finlayson and Dr J R Griffiths	The influence of residual stresses on the physical and mechanical properties of alloys	20 834
Dr R J Fleming	Electrical properties of quartz-implications for defect chemistry	29 475
Dr T J Hicks and Dr J R Davis	Polarisation analysis of diffuse neutron scattering	9 516
Dr T J Hicks	Magnetism in atomically random systems	10 206
Dr J R Pilbrow	Electron spin resonance in biological and model systems	28 175
Professor T F Smith, Associate Professor J D Cashion and Dr T R Finlayson	Vibrational modes and lattice stability in solids	13 600
Dr K Thompson and Dr D W Coates	Photoelectric photometry and spectroscopy of known and candidate RS CVN stars	2 750
Dr R C Tobin	Room temperature metal vapour lasers	9 103
Dr G J F Troup, Associate Professor F Lawson and Mr R G Turner	Application of laser speckle photography to mineral processing investigations	13 000
<i>Psychology</i>		
Dr D C Bradley and Dr R J Wales	Phonological structures and lexical processes	17 500
Dr J L Bradshaw and Dr N C Nettleton	Hemisphere and intermodality integration and conflict in decision making and learning	22 800
Professor R H Day	Perceptual processes involved in visual illusions	20 588
Dr K L Forster	Visual processing of sentences	22 800

Dr D M Thomson	Recall and recognition processes	21 000
Dr W R Webster	Neural systems in the primate involved in auditory and visual spatial localisation: A 2-(14C)-deoxyglucose and (14C)-glucose study	11 500
<i>Science</i>		
Professor W R A Muntz	A behavioural and optical study of visual resolution and sensitivity in cephalopods	13 216
<i>Zoology</i>		
Dr J Baldwin	Studies on the evolution of multilocus isoenzymes of vertebrates utilising Australian lampreys	6 000
Dr G Ettershank	Age pigment accumulation as an ecological tool — baseline studies on daphnia carinata (crustacea)	16 000
Dr P S Lake	The effects of disturbance on stream macroinvertebrates	11 170
Dr B Roberts	The nature of PTTH synthesis and release in flesh flies	13 000

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	A study of thalassaemia syndromes, malaria and other anaemias in Vanuatu	30 665
Dr D Ehrlich	Studies on the development of the supraoptic decussation and optic nerve of chicks	28 405
Dr J B Kerr	Local hormonal control of testicular function	24 413
Dr S M Rees and Dr J A Rawson	Brain structure in chronic placental insufficiency	40 970
Professor R V Short and Dr M B Renfree	Lactational control of reproduction	89 834
Dr P D Temple-Smith and Dr H Teichtahl	Structural and functional studies of cilia in long term cell cultures	31 504

Biochemistry

Dr L Austin, Dr D J Bates and Dr P L Jeffrey	The molecular biology of nerve regeneration	56 075
Dr C J Handley, Dr H C Robinson and Dr S E D'Souza	Molecular structure and organisation of articular cartilage proteoglycan	27 447

Professor D A Lowther, Dr J S Bartholomew and Dr A Sriratana	Entry of pmn elastase into cartilage and decreased chondrocyte metabolism	30 574
Professor D A Lowther and Mr M S Baker	Role of hydrogen peroxide in models of arthritis	25 517
Professor D A Lowther and Dr C J Handley	Changes in metabolism of pregrant sheep and rabbit cervix pre- and post partum	32 391
Professor D A Lowther, Dr C J Handley and Dr H C Robinson	Response of cartilage metabolism to nonsuppressible insulin like activity	27 023
Dr S Marzuki	The expression of human mitochondrial genome	29 610
Associate Professor B N Preston and Dr W D Comper	Experimental models of transcapillary exchange	18 314
Dr H C Robinson	Biosynthesis of heparin the basis of heparins pharmacological activity	4 856
<i>Centre for Early Human Development</i>		
Dr P J Berger and Dr J E Maloney	Perinatal development of the cardio-respiratory system in lambs	64 213
Dr A O Trounson and Mr P J Lutjen	Characterisation and correction of cervical-factor infertility	27 402
Dr A O Trounson and Dr L R Mohr	Studies on mammalian egg and embryo cryopreservation	48 429
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	38 772
Dr A M Walker	Cardiovascular development from birth in lambs after chronic stress in utero	80 725
Dr A M Walker	High frequency ventilation in term and preterm lambs	35 938
Dr A M Walker	Postnatal development of the respiratory system in neonatal lambs stressed in utero	50 872
<i>Centre for Molecular Biology and Medicine</i>		
Professor A W Linnane and Dr P J Hertzog	Characterisation of acid-labile leukocyte interferon in AIDS	75 762
Dr S Marzuki, Dr G L McMullen and Professor A W Linnane	Antibodies with predetermined specificity to individual species of interferon	30 442
<i>Genetics</i>		
Professor B W Holloway, Dr A F Morgan and Dr L V Asche	Genetics of mucoid pseudomonas aeruginosa strains from cystic fibrosis patients	28 763
<i>Medicine</i>		
Dr S R Holdsworth	Mechanisms of glomerular fibrin deposition	38 714
Dr S R Holdsworth	Mechanisms of macrophage accumulation in experimental glomerulonephritis	31 514

Professor C I Johnston and Dr P L Nolan	Vasopressin in blood pressure homeostasis and hypertension	87 760
Dr B P McGrath	Vasoconstrictor mechanisms in congestive heart failure	21 061
Dr P F Ryan	Mechanisms of immunoregulation within the rheumatoid synovial joint	27 953
<i>Microbiology</i>		
Dr J K Davies	The genetics of phase and antigenic variation in neisseria gonorrhoeae	26 689
Dr I M Denham and Professor S Faine	Antibodies to beta-lactamases during human gram-negative bacterial infection	24 499
Professor S Faine	Basis of latency in experimental syphilis	57 520
Professor S Faine and Dr B Adler	Immunity and pathogenesis in leptospirosis	66 581
Dr R A Skurray and Dr J W May	Molecular and genetic analysis of antibiotic resistance in staphylococci	50 721
Dr E G Westaway and Dr P J Wright	Cloning, sequencing and expression of flavivirus genes	55 787
Dr P J Wright and Dr E G Westaway	Molecular basis of the expression of the flavivirus genome	45 430
Dr E G Westaway and Dr P J Wright	Replication and immuno-chemistry of togaviruses	73 340
<i>Obstetrics and Gynaecology</i>		
Mr P J Lutjen and Dr A O Trounson	Studies on the recognition and binding of human spermatozoa to zona pellucida	55 328
Dr P A Rogers, Professor W A Walters and Dr C R Murphy	In vivo and ultrastructural studies on implantation and uterine receptivity	45 026
<i>Pathology and Immunology</i>		
Dr R L Boyd and Professor J W Goding	Phenotypic and functional analysis of thymic stromal cell complexes	34 943
Dr P A Gleeson and Professor J W Goding	Structure and function of the oligosaccharide chains of transferrin receptor	30 693
Dr B H Toh	The gastrin receptor and pernicious anaemia	25 202
Associate Professor M B Van der Weyden and Dr G J Young	Anti-cancer drug resistance and human mutant cell lines	63 521
<i>Pharmacology</i>		
Professor A L A Boura and Dr R G King	Converting enzyme block and cardiovascular responses to sympathetic stimuli	20 056
Dr J N O'Neil	Effects of steroid hormones and pregnancy on myometrial responsiveness to drugs	46 368
Dr J N O'Neil	Effects of steroids and vasectomy on adrenergic neurotransmission in vas deferens	32 694
<i>Physics</i>		
Dr P P Phakey, Professor W A Rachinger and Dr H J Orams	Ultrastructure of carious enamel	31 800

<i>Physiology</i>		
Dr L M Aitkin	The representation of auditory space in the cerebral cortex	44 876
Dr R A Bywater and Dr G S Taylor	Non-cholinergic non-adrenergic neurotransmission in the intestine	23 751
Dr C L Gibbs and Dr L R Wendt	Basal and active metabolism of smooth and cardiac muscle	67 361
Professor M E Holman	Innervation of smooth muscle	35 495
Professor M E Holman and Professor G D Thorburn	Control of uterine motility during pregnancy and parturition	46 435
Dr A R Luff	Mutability of mammalian motor units	30 442
Dr T O Neild	Action of neuropeptide γ on arterioles	53 288
Dr U Proske and Dr D L Morgan	Measurement of stiffness of intact tendon over a wide range of tensions	26 543
Dr U Proske	Golgi tendon organs: development, segmental reflex action and central projections	66 212
Dr G S Taylor and Dr R A Bywater	Electrophysiology of colonic enteric neurones	29 660
<i>Psychological Medicine</i>		
Dr D L Copolov, Professor W J Ewens and Professor B S Singh	Neuroendocrine approaches to diagnosis and subclassification of schizophrenia	48 011
Professor B S Singh, Dr P D McGorry and Dr D L Copolov	Longitudinal course and clinical features in the functional psychoses	24 664
Professor B S Singh, Dr I H Minas and Dr B Tress	Subtypes of schizophrenia and their implications for rehabilitation	35 707
Professor G C Smith, Dr D L Copolov and Dr G L Willis	Interaction of cingulum, amines and endorphin during stress and opiate withdrawal	57 222
<i>Surgery</i>		
Professor V C Marshall, Dr P Jablonski and Clinical Associate Professor D F Scott	Normothermic ex vivo perfusion and renal long-term preservation	3 737
<i>Zoology</i>		
Dr J E Nelson	Neural development in the marsupial native cat	33 052

Gifts in kind

From Mr Guy Boyd, a painting by his brother David Boyd — entitled *The Betrayal 11*, oil on board, measuring four feet square (Monash Art Collection).

From the Estate of the Late George Adams, a gift of surplus computer equipment (Environmental Fluid Mechanics Laboratory, Department of Mechanical Engineering).

Sources of grants and donations	\$000	%
Private donations and indirect Government research grants	7 257	55.4
Australian Research Grants Scheme	2 084	15.9
National Health and Medical Research Council	3 747	28.7
	<u>13 088</u>	<u>100.0</u>

In addition to the gifts and grants listed above, 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	128 000
Centre for Early Human Development (IVF Friends' gifts)	5 520
Centre for Human Bioethics Development Fund	4 024
Elizabeth Eggleston Memorial Fund	164
Elwyn Morey Memorial Fund	9 566
Krongold Centre	3 002
Library Fund	40
Robert Blackwood Hall — Harpsichord	56 833
Staff Silver Jubilee Appeal for gifts to Art Collection	4 844
Ultrasound Fund	1 603
	<u>19 615</u>
Total Appeal Funds	<u>233 211</u>

FINANCE

The following salient points from the audited accounts of the University for the year 1986 are set out for ready reference.

Funds available

Recurrent income Commonwealth and State Government funds available for expenditure on recurrent items during the year ended 31 December 1986 were as follows:

		\$000
University —		
1986 Commonwealth Government Grant	97 198	
1986 State Government Grant	408	
	97 606	
Less balance brought forward from 1985	425	97 181
Teaching hospitals		359
Halls of residence		90

Recurrent expenditure Expenditure for recurrent purposes during the year 1986 was as follows:

	University		Teaching Hospitals		Halls of Residence	
	\$000	%	\$000	%	\$000	%
Academic activities	69 421	70.8	359	100.0		
Academic services	9 065	9.2				
Student services	958	1.0				
General services	18 310	18.8				
Public services	133	0.1				
Other	116	0.1			90	100.0
	98 003	100.0	359	100.0	90	100.0

Capital Commonwealth Government funds received in 1986 for expenditure on capital projects (buildings and furniture) on the University site totalled \$378 000.

Research Commonwealth Government funds received in 1986 for expenditure on special research projects in 1986 totalled \$1 646 000.

Equipment Commonwealth Government funds received in 1986 for expenditure on equipment totalled \$4 363 000.

Union fees

Union fees payable by students enrolled for the year 1986 were as follows:

- (a) students studying on campus: full-time \$238; part-time \$149 or \$104;
- (b) students studying off campus in Victoria: full-time or part-time \$50.

Accounts

The audited accounts of the University for the year 1986 are appended to this report, and provide further details of the year's activities.

General

The Recurrent Commonwealth Grant for 1986 increased by \$5 778 000 (6.3%) over the previous year's grant, whereas the Consumer Price Index (Victoria) for the same period rose by 10.2 per cent.

1986 was also the final year of a three-year phase-out period of the Commonwealth Grant supplementation to the operations of the Halls of Residence. As a substitute for this withdrawal of funding, the Commonwealth increased contributions towards student loan funds.

During 1986, the continued constraint on government grants to universities resulted in an even greater demand upon the limited non-government resources of the University in the area of both the operating budget and capital works such as the new Plessey digital ISDX PABX telephone system.

During 1983, the University created a trust entitled the 'Monash University Foundation'. The University is the sole beneficiary of the trust, and during 1986 received contributions of \$2 272 000 from the foundation.

Additional funds were provided for the Library's 1986 budget to offset partly the substantial increase in the price of books and periodicals.

At the end of 1986, Monash formed a wholly-owned research and consulting company called Montech Pty Ltd to assist in the commercial development of Monash assets and capabilities for the benefit of the University. The creation of Montech Pty Ltd is a further indication of the new directions being pursued at Monash to keep abreast and indeed be a forerunner in the competitive, high-technology, commercial field.

ACCOUNTS FOR THE YEAR 1986

Certificate by Monash University

In our opinion the statements which follow, numbered (1) to (16), correctly record the transactions of Monash University for the year ended 31 December 1986.

MI Logan
Vice-Chancellor

P B Wade
Comptroller

8 September 1987

Auditor-General's Report

The accompanying financial statements of Monash University comprising a Statement of Balances, a Summary Statement of Income and Expenditure together with supporting statements numbered (2) to (12) and statements relating to Donor Nominated Trust Funds, Superannuation and Pension Schemes and the Monash University Foundation, have been audited as required by the Monash University Act 1958 and in accordance with Australian Auditing Standards.

As stated in notes 7, 10, and 11 to the accounts, the investments of the University, held in the Common Fund (\$1 492 612) the Superannuation and Pension Schemes (\$33 401 432) and the Monash University Foundation (\$18 246 214), are held in the name of fund managers. These investments and the related income of \$15 321 203, which includes both unrealised and realised gains and losses in respect of the investment 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 to independently 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 1986 and the results of its operations for the year ended on that date in accordance with Australian Accounting Standards.

F Belli
Deputy Auditor-General

Melbourne
27 November 1987

Notes to and forming part of the accounts — 1986

1 The 1986 annual accounts of Monash University have been prepared pursuant to Section 41 of the Monash University Act 1958.

2 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. Each column in the Summary Statement, for which a supporting statement is attached, records 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.

3 The University does not operate 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.

4 Separate commercial accounts are maintained for management purposes for income-producing activities within the University, eg Halls of Residence, Union Catering, Bookshop.

5 The classifications of income and expenditure used throughout the accounting system conform to the instructions issued by the Commonwealth Tertiary Education Commission 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 as at 31 December 1986 amounted to \$13.5m.

7 During 1986, the University formed a wholly-owned research and consulting company called Montech Pty Limited. The inaugural accounting period for Montech will end on 30 June 1987 and accounts to that date will be included with the 1987 accounts for the University.

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 1986 are recorded in the accounts at cost.

8 The University has taken up certain sub-leases of accommodation with the Queen Victoria Hospital, Clayton, which expire in 1988. These amounts were fully expensed in the 1985 and 1986 accounts in accordance with the accounting principles explained in Note 3 above.

9 Certain IVF program debtors were included in the 1985 accounts. As the legal structure of the IVF program was still in the process of determination at 31 December 1986, these debtors have not been included in the 1986 accounts.

10 *Superannuation and pension schemes — statement 15* 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 1986 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.

In December 1985 the Council resolved that Monash University become a participating institution in the Superannuation Scheme for Australian Universities (SSAU) with effect from 1 January 1986. Transfers were effected during 1986.

11 *Monash University Foundation — statement*

16 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 during 1986 received contributions of \$2 272 000 from the foundation.

Investments of the foundation 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 foundation at 31 December 1986 are recorded in the accounts at cost.

(1) Summary statement showing income and expenditure for all general purposes for the year ended 31 December 1986

	Recurrent grant	Building projects grant	Equipment grant	Teaching hospitals recurrent grant	Special research grant
	\$	\$	\$	\$	\$
Income					
Commonwealth Government grants	97 198 000	378 000	4 363 000	359 000	1 646 000
State Government grant	408 000				
Other					
Total income	97 606 000	378 000	4 363 000	359 000	1 646 000
<i>Less</i>					
Expenditure					
Academic activities	69 420 482		2 702 877	359 000	1 640 444
Academic services	9 065 463		1 065 995		
Student services	958 085		21 933		
General services	18 310 064	378 000	547,762		5 556
Public services	132 714		777		
Other	116 070				
Total expenditure	98 002 878	378 000	4 339 344	359 000	1 646 000
Surplus (deficit) for the year	(396 878)	—	23 656	—	—
Surplus (deficit) at 1 January 1986	(425 317)	—	332 784	—	—
Accumulated surplus (deficit) at 31 December 1986	(822 195)	—	356 440	—	—

Private and indirect gov't research grants	General donations	Union activities	Amenities develop't fund	General auxiliary activities	Fire insurance fund	Total	1985 total
\$	\$	\$	\$	\$	\$	\$	\$
2 084 241				90 400		106 118 641	99 538 148
8 852 137	4 719 621	2 537 433	948 336	11 409 970	64 436	408 000 28 531 933	23 491 733
10 936 378	4 719 621	2 537 433	948 336	11 500 370	64 436	135 058 574	123 029 881
9 563 023	1 568 615					85 254 441	78 387 378
	104 943					10 236 401	9 764 884
380 767	70 996			1 263 831		2 695 612	2 465 458
23 069	515 029		563 717	2 107 217		22 450 414	18 700 409
	2 077					135 568	147 452
	63 698	2 492 211	206 378	10 080 354		12 958 711	10 120 338
9 966 859	2 325 358	2 492 211	770 095	13 451 402	—	133 731 147	119 585 919
969 519	2 394 263	45 222	178 241	(1 951 032)	64 436	1 327 427	3 443 962
1 159 839	3 837 527	589 056	(623 189)	9 623 723	271 129	14 765 552	11 321 590
2 129 358	6 231 790	634 278	(444 948)	7 672 691	335 565	16 092 979	14 765 552

(2) **Recurrent grant**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
91 420 000	Income	
<u> —</u>	Commonwealth Government grant	97 198 000
<u>91 420 000</u>	State Government grant	<u>408 000</u>
	Total income	<u>97 606 000</u>
	<i>Less</i>	
	Expenditure	
	<i>Academic activities</i>	
	Teaching and research —	
58 338 381	Salaries and related items	61 574 306
2 662 308	Maintenance	3 779 604
1 206 575	Computing services	1 826 597
358 261	Equipment	669 619
211 535	Outside studies program	257 856
118 859	New appointments	156 041
947 381	Other items	<u>1 156 459</u>
<u>63 843 300</u>		<u>69 420 482</u>
	<i>Academic services</i>	
	Libraries —	
4 493 140	Salaries and related items	4 875 571
2 001 590	Books and journals	2 425 940
244 913	Maintenance	274 864
108 772	Computing services	157 146
30 491	Equipment	—
33 944	Other items	<u>28 930</u>
<u>6 912 850</u>		<u>7 762 451</u>
	Computing —	
1 425 331	Salaries and related items	1 681 593
205 407	Maintenance	212 729
981	Equipment	4 275
1 394 421 Cr.	Recoveries	2 192 484 Cr.
9 666	Other items	<u>7 917</u>
<u>246 964</u>		<u>285 970 Cr.</u>
	Other academic services —	
1 402 158	Salaries and related items	1 490 280
65 265	Other items	<u>98 702</u>
<u>1 467 423</u>		<u>1 588 982</u>
<u>72 470 537</u>	<i>Sub-total carried forward</i>	<u>78 485 945</u>

(2) **Recurrent grant**
Statement of income and expenditure for the year ended 31 December 1986
(continued)

1985		1986
\$		\$
72 470 537	<i>Sub-total brought forward</i>	78 485 945
	<i>Student services</i>	
791 121	Salaries and related items	845 798
1 254 303	Scholarships	88 604
19 223	Other items	23 683
<u>2 064 647</u>		<u>958 085</u>
	<i>General services</i>	
	Administration —	
6 309 233	Salaries and related items	7 194 816
95 285	Computing services	210 309
187 683	Other items	182 435
<u>6 592 201</u>		<u>7 587 560</u>
	Overheads —	
1 013 134	Postage, telephone and advertising	1 062 681
262 409	Furniture and furnishings	264 512
1 629 441	Power, lighting and heating	1 833 292
807 687	Other items	906 066
<u>3 712 671</u>		<u>4 066 551</u>
	Buildings and grounds —	
4 621 107	Salaries and related items	4 878 561
1 375 087	Maintenance	1 522 396
243 872	Other items	254 996
<u>6 240 066</u>		<u>6 655 953</u>
	<i>Public services</i>	
	Continuing education —	
121 158	Salaries and related items	132,299
1 006	Other items	415
<u>122 164</u>		<u>132 714</u>
<u>105 358</u>	<i>Union administration</i>	<u>116 070</u>
<u>91 307 644</u>	Total expenditure	<u>98 002 878</u>
112 356 (S)	Deficit for the year	396 878
537 673	Deficit at 1 January 1986	425 317
<u>425 317</u>	Accumulated deficit at 31 December 1986	<u>822 195</u>

(3) **Building projects grant**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
352 000	Income	
<u>352 000</u>	Commonwealth Government grant	<u>378 000</u>
	Total income	<u>378 000</u>
	<i>Less</i>	
85 895	Expenditure	
<u>273 406</u>	Site works and services	<u>112 815</u>
<u>359 301</u>	Other minor building works	<u>265 185</u>
	Total expenditure	<u>378 000</u>
7 301 (D)	Surplus for the year	—
<u>7 301</u>	Surplus at 1 January 1986	—
<u>—</u>	Accumulated surplus at 31 December 1986	<u>—</u>

(4) **Equipment grant**
Statement of income and expenditure for the year ended 31 December 1986

1985 \$		1986 \$
3 748 000	Income	
<u>3 748 000</u>	Commonwealth Government grant	4 363 000
	Total income	<u>4 363 000</u>
	<i>Less</i>	
	Expenditure	
	<i>Academic activities</i>	
	Teaching and research —	
2 545 415	Equipment	<u>2 702 877</u>
	<i>Academic services</i>	
	Libraries —	
42 216	Books and journals	8 724
<u>38 682</u>	Equipment	<u>37 299</u>
80 898		<u>46 023</u>
<u>697 217</u>	Computing	<u>708 737</u>
163 252	Other academic services	<u>311 235</u>
<u>9 267</u>	<i>Student services</i>	<u>21 933</u>
	<i>General services</i>	
144 420	Administration	509 814
<u>—</u>	Buildings and grounds	<u>37 948</u>
<u>144 420</u>		<u>547 762</u>
23 513	<i>Public services</i>	<u>777</u>
<u>3 663 982</u>	Total expenditure	<u>4 339 344</u>
84 018	Surplus for the year	23 656
<u>248 766</u>	Surplus at 1 January 1986	<u>332 784</u>
<u>332 784</u>	Accumulated surplus at 31 December 1986	<u>356 440</u>

Teaching hospitals recurrent grant
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
341 000	Income	
341 000	Commonwealth Government grant	359 000
	Total income	359 000
	<i>Less</i>	
	Expenditure	
	Academic activities	
	Teaching and research —	
341 000	Maintenance	359 000
341 000	Total expenditure	359 000
—	Surplus for the year	—

Special research grant
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
1 561 000	Income	
1 561 000	Commonwealth Government grant	1 646 000
	Total income	1 646 000
	<i>Less</i>	
	Expenditure	
	<i>Academic activities</i>	
	Teaching and research —	
988 703	Salaries and related items	888 107
451 530	Maintenance	535 151
113 074	Other items	217 186
1 553 307		1 640 444
	<i>General services</i>	
51	Furniture and furnishings	—
7 642	Postage, telephone and advertising	5 556
7 693		5 556
1 561 000	Total expenditure	1 646 000
—	Surplus for the year	—

(7) **Private and indirect government research grants**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
<u>1 959 848</u>	Income	
	Commonwealth Government grant	<u>2 084 241</u>
	Grants and donations	
5 250 860	Government-financed bodies	5 717 851
<u>1 757 363</u>	Other	<u>3 134 286</u>
<u>7 008 223</u>		<u>8 852 137</u>
<u>8 968 071</u>	Total income	<u>10 936 378</u>
	<i>Less</i>	
	Expenditure	
	<i>Academic activities</i>	
	Teaching and research —	
6 091 692	Salaries and related items	6 753 763
1 534 314	Maintenance	1 691 152
2 707	Computing services	180
732 500	Equipment	854 433
<u>314 240</u>	Other items	<u>263 495</u>
<u>8 675 453</u>		<u>9 563 023</u>
	<i>Student services</i>	
<u>324 416</u>	Scholarships	<u>380 767</u>
	<i>General services</i>	
26 729	Postage, telephone and advertising	18 405
520	Furniture and furnishings	—
7 600	New buildings	—
<u>1 851</u>	Buildings maintenance	<u>4 664</u>
<u>36 700</u>		<u>23 069</u>
<u>9 036 569</u>	Total expenditure	<u>9 966 859</u>
68 498 (D)	Surplus for the year	969 519
<u>1 228 337</u>	Surplus at 1 January 1986	<u>1 159 839</u>
<u>1 159 839</u>	Accumulated surplus at 31 December 1986	<u>2 129 358</u>

(8) General donations

Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
	Income	
	Donations	
	Government-financed bodies	680 620
	Other	3 743 911
		<u>4 424 531</u>
	Appeals	
	Library books	56 832
	Other	304
		<u>57 136</u>
	Other income	<u>237 954</u>
	Total income	<u>4 719 621</u>
	<i>Less</i>	
	Expenditure	
	<i>Academic activities</i>	
	Teaching and research —	
	Salaries and related items	900 818
	Maintenance	333 509
	Equipment	158 535
	Other items	175 753
		<u>1 568 615</u>
	<i>Academic services</i>	
	Libraries —	
	Books and journals	63 809
	Other items	1 012
		<u>64 821</u>
	Computing —	
	Salaries and related items	<u>38 192</u>
	Other academic services —	
	Salaries and related items	724
	Other items	1 206
		<u>1 930</u>
	<i>Sub-total carried forward</i>	<u>1 673 558</u>
339 079		
<u>2 895 530</u>		
3 234 609		
50 067		
<u>7 208</u>		
57 275		
<u>129 748</u>		
<u>3 421 632</u>		
689 912		
423 380		
109 617		
<u>205 994</u>		
1 428 903		
183 660		
—		
<u>183 660</u>		
—		
1 801		
<u>10 819</u>		
<u>12 620</u>		
<u>1 625 183</u>		

(8) **General donations**
Statement of income and expenditure for the year ended 31 December 1986
(continued)

1985		1986
\$		\$
1 625 183	<i>Sub-total brought forward</i>	1 673 558
	<i>Student services</i>	
	Salaries and related items	8 282
62 452	Scholarships	63 214
4 676	Other items	(500)
67 128		70 996
	<i>General services</i>	
	Administration —	
25 417	Salaries and related items	—
16 471	Other items	11 986
41 888		11 986
	Overheads —	
7 146	Furniture and furnishings	8 926
18 856	Postage, telephone and advertising	14 416
26 002		23 342
	Buildings and grounds —	
89 812	New buildings	478 064
14 598	Maintenance	1 637
104 410		479 701
	<i>Appeals</i>	
52 517	Library books	58 308
1 775	<i>Public services</i>	2 077
7 424	<i>Union activities</i>	5 390
1 926 327	Total expenditure	2 325 358
1 495 305	Surplus for the year	2 394 263
2 342 222	Surplus at 1 January 1986	3 837 527
3 837 527	Accumulated surplus at 31 December 1986	6 231 790

(9) **Union activities**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
2 079 612	Income	
269 302	Union fees	2 246 994
<u>2 348 914</u>	Other	<u>290 439</u>
	Total income	<u>2 537 433</u>
	<i>Less</i>	
	Expenditure	
550 401	Sports and Recreation Association	583 259
382 500	Monash Association of Students	420 538
237 999	Clubs and Societies Council	258 773
264 851	Union tuition and courses	305 647
289 687	Union building management	213 000
679 705	Union administration and special projects	785 812
	Business activities	
19 182 (S)	Catering — operating deficit	12 949
25 347 (S)	Other — operating surplus	<u>30 148</u>
		<u>17 199 (S)</u>
<u>2 260 614</u>		2 549 830
	<i>Less</i>	
	Contribution by University for use of facilities by staff	57 619
54 662		<u>57 619</u>
<u>2 205 952</u>	Total expenditure	<u>2 492 211</u>
142 962	Surplus for the year	45 222
446 094	Surplus at 1 January 1986	589 056
<u>589 056</u>	Accumulated surplus at 31 December 1986	<u>634 278</u>

(10) Amenities development fund

Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
	Income	
575 748	Amenities and development fees	618 762
<u>272 367</u>	Rentals and other	<u>329 574</u>
<u>848 115</u>		<u>948 336</u>
	<i>Less</i>	
	Expenditure	
	General services	
345 505	New buildings	278 230
223 100	Maintenance — buildings	267 594
<u>13 572</u>	Furniture and furnishings	<u>17 893</u>
<u>582 177</u>		<u>563 717</u>
	<i>Other items</i>	
83 820	Equipment	32 442
113 420	Occupancy expense	120 040
<u>73 670</u>	Other items	<u>53 896</u>
<u>270 910</u>		<u>206 378</u>
<u>853 087</u>	Total expenditure	<u>770 095</u>
4 972 (D)	Surplus for the year	178 241
<u>618 217</u>	Deficit at 1 January 1986	<u>623 189</u>
<u>623 189</u>	Accumulated deficit at 31 December 1986	<u>444 948</u>

(11) **General auxiliary activities**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
	Income	
	Commonwealth Government grant:	
	Halls of residence	90 400
156 300	Outside earnings	5 801 065
5 283 212	Other income	5 608 905
4 548 808	Total income	<u>11 500 370</u>
<u>9 988 320</u>		
	<i>Less</i>	
	Expenditure	
	<i>Student services</i>	
	Scholarships	1 263 831
	<i>General services</i>	
	Overheads —	
	Furniture and furnishings	22 545
40 427	Buildings and grounds —	
	Building construction and site works	1 924 977
731 102	Maintenance	159 695
76 611		<u>3 371 048</u>
<u>848 140</u>		
	<i>Other items</i>	
	University bookshop	102 392 Cr.
93 884 Cr.	Halls of residence	82 665
221 798	South east flats	50 700 Cr.
43 394 Cr.	Owned houses and transit flats	10 985
15 844 Cr.	Outside earnings —	
	Monash University Foundation	2 683 000
2 032 724	Other	7 473 739
5 495 471	Other	16 943 Cr.
118 694 Cr.		<u>10 080 354</u>
<u>7 478 177</u>	Total expenditure	<u>13 451 402</u>
<u>8 326 317</u>		
1 662 003 (S)	Deficit for the year	1 951 032
7 961 720	Surplus at 1 January 1986	9 623 723
<u>9 623 723</u>	Accumulated surplus at 31 December 1986	<u>7 672 691</u>

(12) **Fire insurance fund**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
32 829	Income	
<u>32 829</u>	Income from investments	64 436
	Total income	<u>64 436</u>
	<i>Less</i>	
	Expenditure	
4 740	Replacement of equipment	<u>—</u>
<u>4 740</u>	Total expenditure	<u>—</u>
28 089	Surplus for the year	64 436
243 040	Surplus at 1 January 1986	<u>271 129</u>
<u>271 129</u>	Accumulated surplus at 31 December 1986	<u>335 565</u>

(13) Statement of balances for all general purposes at 31 December 1986

1985 \$		1986 \$
	Accumulated funds	
425 317 Dr.	Recurrent grant	822 195 Dr.
—	Building projects grant	—
332 784	Equipment grant	356 440
—	Teaching hospitals — recurrent grant	—
—	Special research grant	—
1 159 839	Private and indirect government	
3 837 527	research grants	2 129 358
589 056	General donations	6 231 790
623 189 Dr.	Union activities	634 278
9 623 723	Amenities development fund	444 948 Dr.
271 129	General auxiliary activities	7 672 691
	Fire insurance fund	335 565
14 765 552	Total accumulated funds	16 092 979

		<i>Represented by</i>		
		Investments (refer note 7)		
		Montech Pty Limited	9 998	
		Investments in managed funds —		
		Westpac Investment Management		
1 366 986		Pty Ltd	1 492 612	
		(Market value:		
		31 December 1986 — \$2 165 077		
		31 December 1985 — \$1 754 838)		
	1 366 986			1 502 610
		Current assets		
260,190		Cash at bank and on hand	185 479	
43 002 132		Cash on term deposits	39 083 782	
		Debtors —		
1 227 000		Accrued Government grants	851 700	
3 108 359		Other	3 128 332	
		Stocks on hand, at cost less		
905 586		obsolescence	1 081 808	
54 027		Payments in advance	60 647	
	<u>48 557 294</u>			<u>44 391 748</u>
	49 924 280			45 894 358
		<i>Less</i>		
		Current liabilities		
1 243 687		Bank overdraft	1 243 745	
7 640 424		Sundry creditors and accrued		
		expenses	8 550 856	
1 395 568		Students' fees received in		
		advance	3 025 317	
23 333 147		Government grants received in		
33 612 826		advance	15 558 462	
			28 378 380	
1 545 902		Long-term liabilities		
		Loans on mortgage	1 422 999	
	<u>35 158 728</u>			<u>29 801 379</u>
	<u>14 765 552</u>	Net assets		<u>16 092 979</u>

(14) Donor nominated trust funds
Statement of income and expenditure for the year ended 31 December 1986

1985 \$		1986 \$
14 206	Income	
14 206	Income from investments	20 257
	Total income	20 257
	<i>Less</i>	
	Expenditure	
450	Max Buxton Scholarship	900
51	Graham John Beard Memorial Fund	508
1 001	JW Dodds Memorial Scholarship	1 222
800	Vallejo Gantner Memorial Travel Fund	800
—	Oscar Mendelsohn Lecture	1 363
110	Monash University Rowing Club	108
340	WP and HE O'Shea Fund	330
150	The David B Rosenthal Memorial Trust	300
2 751	Hume Turnbull Scholarship	1 302
5 403	William and Katherine Winter Foundation	5 779
11 056	Total expenditure	12 612
3 150	Surplus for the year	7 645

Balance sheet at 31 December 1986

1985		1986
\$		\$
114 185	Accumulated funds	117 335
<u>3 150</u>	Funds at 1 January 1986	<u>7 645</u>
<u>117 335</u>	Surplus for the year	<u>124 980</u>
	Total accumulated funds	
	<i>Represented by</i>	
	Investments	
55 045	Government securities, at cost	55 045
23 400	Semi-government securities, at cost	25 491
17 960	Fixed-interest securities, at cost	17 960
—	Unsecured convertible notes, at cost	7 654
3 785	Ordinary shares, at cost	1 833
	(Market value:	
	31 December 1986 — \$7 040,	
	31 December 1985 — \$12 007)	
<u>100 190</u>		<u>107 983</u>
	Current assets	
17 000	Fixed deposit stock	17 000
<u>145</u>	Cash at bank	<u>—</u>
17 145		17 000
	<i>Less</i>	
	Current liability	
	Bank overdraft	<u>3</u>
<u>17 145</u>		<u>16 997</u>
<u>117 335</u>	Total assets	<u>124 980</u>

(15) **Superannuation and pension schemes**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
	Income	
3 008 392	Members' contributions	333 786
5 837 007	University's contributions	249 005
16 872 470	Appreciation of managed funds	12 171 311
524 124	Income from other investments	568 631
22 032	Other income	30 942
<u>26 264 025</u>	Total income	<u>13 353 675</u>
	<i>Less</i>	
	Expenditure	
	Lump sum withdrawal payments —	
	Members transferring to SSAU	85 528 914
3 419 977	Benefit payments to members	684 312
427 642	Payments on withdrawal	2 644 863
289 711	Other payments	193 122
<u>4 137 330</u>	Total expenditure	<u>89 051 211</u>
22 126 695 (S)	Deficit for the year	75 697 536
88 952 312	Surplus at 1 January 1986	111 079 007
<u>111 079 007</u>	Accumulated surplus at 31 December 1986	<u>35 381 471</u>

(15) **Superannuation and pension schemes**

Balance sheet at 31 December 1986

(excluding contributions applied as premiums to assurance policies with the staff superannuation scheme)

1985 \$		1986 \$
<u>111 079 007</u>	Accumulated funds	
	Accumulated surplus	<u>35 381 471</u>
	<i>Represented by</i>	
	Investments	
6 961 566	Term deposits	1 600 000
36 634 676	Investments in managed funds —	
	Australian Mutual Provident Society	10 990 921
35 169 448	National Mutual Life Association of	
31 979 298	Australasia Limited	12 833 697
<u>110 744 988</u>	Westpac Investment Management Pty Ltd	<u>9 576 814</u>
		<u>35 001 432</u>
	Current assets	
332 320	University current account	380 039
1 699	Accounts receivable	<u>—</u>
<u>334 019</u>		<u>380 039</u>
<u>111 079 007</u>	Total assets	<u>35 381 471</u>

(16) **Monash University Foundation**
Statement of income and expenditure for the year ended 31 December 1986

1985		1986
\$		\$
1 973 161	Income	
<u>1 973 161</u>	Income from investments	2 832 336
	Total income	<u>2 832 336</u>
	<i>Less</i>	
	Expenditure	
60 267	Investment adviser's fee	71 282
881	Bank charges	1 288
<u>775</u>	Legal fees	<u>—</u>
<u>61 923</u>	Total expenditure	<u>72 570</u>
1 911 238	Surplus for the year	2 759 766
	<i>Less</i>	
<u>434 000</u>	Distribution to Monash University	<u>472 000</u>
<u>1 477 238</u>	Retained surplus for the year	<u>2 287 766</u>

(16) **Monash University Foundation**
Balance sheet at 31 December 1986

1985		1986
\$		\$
	Accumulated funds	
	<i>Capital funds</i>	
12 065 976	Balance at 1 January 1986	14 432 700
	<i>Add</i>	
1 500 000	Allocation from accumulated surplus to preserve capital	1 500 000
<u>2 032 724</u>	Contribution from Monash University	<u>2 683 000</u>
15 598 700		18 615 700
	<i>Less</i>	
<u>1 166 000</u>	Distribution to Monash University from capital	<u>1 300 000</u>
14 432 700		17 315 700
	<i>Accumulated surplus</i>	
628 884	Balance at 1 January 1986	606 122
	<i>Add</i>	
<u>1 477 238</u>	Retained surplus for year ended 31 December 1986	<u>2 287 766</u>
2 106 122		2 893 888
	<i>Less</i>	
1 500 000	Allocation to capital funds to preserve capital	1 500 000
<u>—</u>	Distribution to Monash University from accumulated surplus	<u>500 000</u>
606 122		893 888
<u>15 038 822</u>		<u>18 209 588</u>
	<i>Represented by</i>	
	Investments	
15 070 017	Investment portfolio — Morgan Guaranty Australia Limited (Market value: 31 December 1986 — \$21 723 624 31 December 1985 — \$16 267 895)	18 246 214
	Current assets	
73	Cash at bank	98
	<i>Less</i>	
<u>31 268</u>	Current liabilities Accrued charges	<u>36 724</u>
(31 195)		(36 626)
<u>15 038 822</u>	Total net assets	<u>18 209 588</u>

MONTECH

Profit and loss account and balance sheet of Montech Pty Ltd for the period 1 December 1986 (date of incorporation) to 31 December 1986*

We, Malcolm Ian Logan and Paul Richard William Hudson, being directors of Montech Pty Ltd hereby state that in the opinion of the directors

- (a) the attached profit and loss account is drawn up so as to give a true and fair view of the profit or loss of the company for the period to which it relates; and
- (b) the attached balance sheet is drawn up so as to give a true and fair view of the state of affairs of the company at the end of the period to which it relates.

MI Logan

PRW Hudson

Auditor-General's Report

The accompanying financial statements comprising a balance sheet and a profit and loss account 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 financial position of Montech Pty Ltd as at 31 December 1986 and the results of its operations for the year ended on that date in accordance with Australian Accounting Standards.

F Belli

Deputy Auditor-General

Melbourne
27 November 1987

*The first financial year of the company will be 1 December 1986 to 30 June 1987. Thereafter, each financial year will commence on 1 July and end on the following 30 June.

Montech Pty Ltd**Profit and loss account for the period 1 December 1986 (incorporation date) to 31 December 1986**

1985		1986
\$		\$
	Income	Nil
	Expenditure	Nil
	Net profit or loss	Nil

Balance sheet as at 31 December 1986

1985		1986
\$		\$
	Shareholders funds	
	Authorised capital —	
	100 000 ordinary shares at \$1 each	\$100 000
	Issued capital —	
	10 000 ordinary shares at \$1 each — fully paid	10 000
	Profit and loss appropriation	Nil
	Total shareholders' funds	10 000
	These funds are represented by	
	Current assets	
	Cash at bank (Westpac Banking Corporation)	
	Account No. 660106	500
	Account No. 577502	9 500
	Total assets	10 000

