

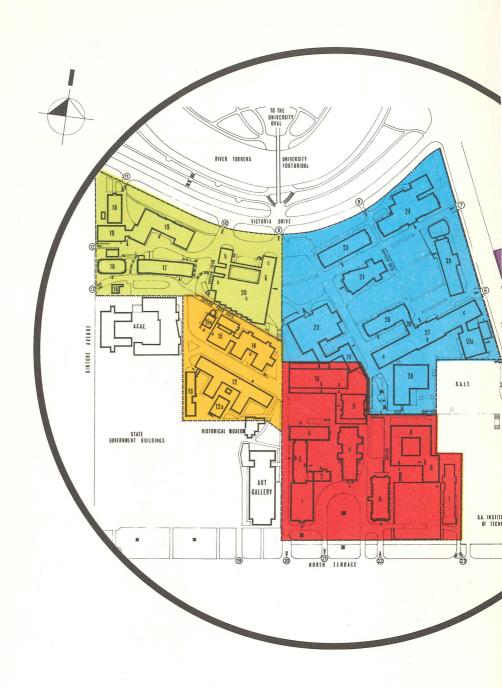
# THE UNIVERSITY OF ADELAIDE SOUTH AUSTRALIA

# 1980

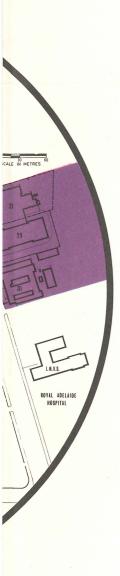
# CALENDAR

**VOLUME III** 

Annual Report 1979; Financial Statements 1979.



THE UNIVERSITY OF ADELAIDE



Mitchell Building 1 Administration. Office of Academic Registrar. Bursar. Old Classics Wing 2 Administration. Architectural Services Unit.  Kenneth Wills Building 3 a. Administration. Office of Vice-Chancellor. Registrar. a. Parking Office b. Adult Education. b. Post Office. Hughes Building 4 Advisory Centre for University Education.	
Bursar.  Old Classics Wing 2 Administration. Architectural Services Unit.  Kenneth Wills Building - 3 a. Administration. Office of Vice-Chancellor. Registrar. a. Parking Office b. Adult Education. b. Post Office.  Hughes Building 4 Advisory Centre for	
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Advisory Centre for	
University Education	
Anthropology. Bank of Adelaide. Multilith Centre. Music. Psychology. W.E.A.	
Elder Conservatorium 5	,
Bonython Hall 6	
<b>Ligertwood Building</b> 7 Classics. Law. Philosophy.	
Napier Building 8 a. Commerce. a. Economics. b. Education.	
b. English. b. French. b. Geography. b. German. b. History. b. Politics.	
University Club 9	
Library Complex 10 a. Architecture. a. Computing Centre. a. Computing Science. a. Health Service. a. Radio VLSUV. b. Research Library.	

Services Supt.'s Residence	-	16	
Organic Chemistry	-	17	
C.S.I.R.O	-	18	
Johnson Laboratories - Physical and Inorganic Chemistry.	-	19	
University Union a. Refectory and Amenities. b. Lady Symon Building, c. George Murray Buildin d. Union Bookshop, e. Little Theatre.		20	

Horace Lamb Building - - 11

Architecture. Mathematics. Library.		
Union Hall	-	21
Barr Smith Library	-	22
Benham Laboratories - Botany.	-	23
Mawson Laboratories - Economic Geology. Geology.	-	24
<b>R. A. Fisher Laboratories</b> Biology. Genetics. Zoology.	-	25
Mathematics Building - Mathematics. Statistics.	-	26
Engineering Building a. Civil b. Electrical c. Chemical d. Engineering Depts.	-	27
Mech. Engineering Building	-	28

Physics Building 12 Physics. a. Physics & Maintenance Workshop.
Oliphant Wing 13 Physics. Mathematical Physics. Mawson Institute. Asian Studies. Environmental Studies.
Darling Building 14 Biochemistry.
Bragg Laboratories 15 Physics.  Observatory 15a Physics.

THE FOLLOWING ARE AT NORTH ADELAIDE

Medical School (South Wing) 29 Anatomy & Histology. Microbiology & Immunology. Pathology. Physiology & Pharmacology. Oral Biology. Road Accident Research
Unit. Medical Sciences
(North Wing) 31 Anatomy. Pathology.
Physiology & Pharmacology. Electron Microscopy. Faculty Administration.
Dental School 30
Dental Health.
Oral Pathology and
Oral Surgery. Restorative Dentistry.

# RTMENTS RELOCATED

ropology—Moved to the Medical School. Biology—Moved to the Medical School. osophy—Moved to the Hughes Building. Physical Education Administration. Gymnasium. Squash Courts. Child Care Centre Aquinas College Lincoln College Kathleen Lumley College St. Ann's College St. Mark's College

Mark Mitchell Centre

Mackinnon Parade Palmer Place Brougham Place Finnis Street Brougham Place Pennington Terrace

Mackinnon Parade

# CALENDAR

OF

# THE UNIVERSITY OF ADELAIDE

FOR THE YEAR

1980

**VOLUME III** 

ADELAIDE: GRIFFIN PRESS LIMITED, MARION ROAD, NETLEY 1980

## ADDRESS FOR CORRESPONDENCE

## Correspondence should be addressed as follows:

About courses (and related matters such as admission, examinations, scholarships and prizes), and educational matters generally: to

The Academic Registrar.

About financial matters: to

The Bursar.

About other matters, including staff appointments of all kinds and matters relating to the buildings and grounds: to

The Registrar.

#### Address:

The University's postal address is:

The University of Adelaide, Box 498 G.P.O., ADELAIDE, South Australia 5001.

The University's telephone number is 223 4333 (Area Code: 08); and the Telex number is UNIVAD AA89141.

# The University of Adelaide

#### **FOREWORD**

The Calendar of the University is published annually in three Volumes, as follows:

#### **VOLUME I**

# General Information, including-

The University Act

Staff

Statutes

Standing Orders of the Senate

The Elder Conservatorium of Music

Institutions, Foundations and Colleges of the University

Public Lectures and Courses

Service Departments and Divisions of the University

Scholarships and Prizes

Societies Associated with the University

#### **VOLUME II**

# "Details of Courses", being-

Regulations, Schedules and Syllabuses of degree and diploma courses

Rules

Timetables

# **VOLUME III**

# Annual Report, including Financial Statements

The Commemoration Addresses and the List of Graduates and Diploma Holders of the University will not be published in Volume III of the Calendar for 1980. An up-to-date list of graduates and diploma holders is maintained by the Academic Registrar and may, on application, be consulted in his Office

A Bibliography of publications by members of staff of the University in 1980 will be published separately.

# These Volumes are normally published as follows:

VOLUME I: In May: price \$2.

VOLUME II: In December of previous year: price \$1.

VOLUME III: In August: price \$1.

Postage extra.



# THE ARMS OF THE UNIVERSITY

The heraldic description of the Coat of Arms is as follows:

Per pale Or and Argent an Open Book proper edged Gold on a Chief Azure five Mullets, one of eight, two of seven, one of six and one of five points of the second, representing the Constellation of the Southern Cross:

and the Motto associated with the Arms is-

Sub cruce lumen

"The light (of learning) under the (Southern) Cross"

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# ANNUAL REPORT FOR THE YEAR 1979

#### 1. General

Once again the year has been dominated by the need for the University to come to terms with inadequate financial allocations. The University's recurrent grant for the triennium 1979-81 shows a small but continuing decline in real terms compared with 1978. This reduction, combined with unavoidable cost increases resulting from such items as 'incremental creep' (i.e. the cost of contractual annual staff salary increments), promotions, and the expected new industrial agreement for ancillary staff, has inevitably imposed further austerity measures on the University. Apart from general reductions in all types of expenditure, the University was forced, at the end of the year, to introduce a complete freeze on the filling of all academic posts (other than tutorial and part-time posts) falling vacant during 1980 and 1981, and to keep the majority of support posts vacant for six months before they are refilled. The adverse effects of such a policy, of course, fall very unevenly on different departments, some of which are in serious danger of having to cut back courses and student numbers. Some optional courses have already had to be dropped. Urgent investigations are in progress to see how the cost of 'incremental creep' and promotions can be contained, and the effect of budgetary restrictions shared more evenly.

The General Development Grant made available to the University during the current triennium has fortunately made it possible to initiate some new developments, in spite of the overall shortage of funds. However, unless the grants used for these purposes are continued for much longer than the current triennium, the University will face serious problems when the time comes to transfer the new posts created from the General Development Grant to its ordinary budget.

Following the publication of the report of the Committee of Enquiry into Post-Secondary Education in South Australia (the Anderson Committee) in 1978, the South Australian Government acted quickly to put into effect its main recommendation, and early in 1979 the State Parliament passed an Act establishing the Tertiary Education Authority for South Australia (TEASA). It came into operation on 1 July 1979. The Government consulted the University very fully while the Act was being drafted, and took into account various representations made by the University. The University considered that the legislation was reasonably satisfactory, and that it would enable constructive co-ordination to be achieved between the post-secondary institutions in the State and the Authority without impinging significantly on the University's responsibilities as a self-governing institution. The main functions of the Authority are:

- (1) to make investigations and reports in relation to post-secondary education in South Australia;
- (2) to give advice to post-secondary institutions and, where appropriate, the TEC with a view to rationalising the resources available for post-secondary education;
- (3) to approve and accredit courses and academic awards at post-secondary institutions;
- (4) to advise the Minister and the TEC on financial matters relating to post-secondary education.

# The Act provides inter alia that

- (1) while the Authority will have the power to apportion money received from the Federal Government to post-secondary institutions, this will not apply to the universities, which will continue to receive their financial support through the Universities Council;
- (2) all post-secondary institutions (including the universities) must inform the Authority of any representations they propose to make to the TEC in regard to their finances or courses, to enable the Authority to comment on them to the TEC, and any such comments must be communicated to the institutions;
- (3) post-secondary institutions other than the universities may not provide any course unless the course has been approved by the Authority, or confer an academic award unless the course followed has been accredited by the Authority (i.e. the universities will continue to accredit their own courses).

TEASA is still very much in its infancy and it is as yet too early to determine the impact it will have on post-secondary education in South Australia. It must not be forgotten that co-operative ventures between institutions existed prior to the establishment of TEASA, and that the University of Adelaide has been an initiator of such programs in the past. For example, the University of Adelaide has co-operated for several years with the South Australian Institute of Technology in providing teaching in the Department of Anatomy for S.A.I.T. students of occupational therapy, physiotherapy, and more recently, podiatry and laboratory technology, while this year the Institute and the University have agreed to set up a joint combustion laboratory on S.A.I.T. premises. Another example of co-operation is that between Flinders University and the University of Adelaide in the area of Asian languages. In the past Chinese has been taught on the Flinders campus by Flinders staff, and Indonesian has been, and is still, taught on the Adelaide campus by Flinders staff.

The Report of the Committee of Inquiry into Education and Training (the Williams Committee) was published in March 1979. Some of the Report's important recommendations for universities include the following:

- co-ordination of the work of universities should continue to be a Commonwealth responsibility and State government co-ordinating authorities should have much wider responsibility for the activities of colleges of advanced education and colleges of technical and further education than for universities;
- (2) full triennial funding for universities and colleges should be restored:
- (3) additional government support should be provided to build up postgraduate centres in universities;
- (4) increased funds should be allocated for the Australian Research Grants Committee and the National Health and Medical Research Council:
- (5) the number of Commonwealth Postgraduate Awards should be restored to the levels prevailing in 1975 and 1976;
- (6) inter-disciplinary research projects with limited life should qualify for grants to enable universities to develop concentrations of postgraduate students and staff; and
- (7) there should be contracting for educational work between colleges of advanced education and universities to enable increased access to higher education, especially in outer suburban areas and country centres.

The Report calls for active investigation into issues such as the setting of intake numbers and overall university 'target numbers' (i.e. total numbers or student loads which are the basis for government funding), the relation between entrance scores and failure rates, advice to potential entrants, and learning programs for first-year students. The Australian Vice-Chancellors' Committee has already set up national working parties to investigate further these recommendations and the University will be responding to these initiatives.

The Williams Committee also reported on the difficult matter of evaluating the quality and efficiency of educational institutions and commended the practice of regular reviews of education and educational activities within institutions.

This University has already embarked on a number of such reviews, partly under the pressure of financial stringency, but also because the University is conscious of the need to be constantly rethinking its courses and role, in order that it may best serve the needs of the community and maintain its standards of excellence. As reported last year, most of these reviews were undertaken by the Planning Committee.

A review of the Mawson Institute of Antarctic Research was commenced in 1978 with a view to making recommendations on its future.

A review of the Advisory Centre for University Education (ACUE) was commenced in September 1977 and concluded early this year. The following recommendations concerning the Centre have been adopted by Council:

- (1) the ACUE's purpose is to assist in the development of effective educational and teaching practices. The revised aims of the Centre will be
  - (a) to give professional assistance to those staff members and departments who seek help to improve the effectiveness of their teaching;
  - (b) to study matters related to higher education at the University of Adelaide;
- (2) the Acting Director has been accorded the title and responsibilities of Director for five years from 1 January 1979, and the secondment of staff from other departments to the Centre is to be encouraged.

(3) the Centre has been asked to take every opportunity to rationalise the audio-visual services in various parts of the University. Like other areas of the University, the Centre's accommodation is being kept under continuing review.

The Dental Faculty has been involved with an on-going review of its curriculum since 1974. The overall aim is to accommodate the trend in dental education towards a more community-oriented, preventive approach to dental care. Despite staff and accommodation limitations, the Dental Faculty has made substantial progress in adapting to changing community needs and circumstances for dental graduates. Revised courses in the first and second year undergraduate curriculum are being planned for introduction in 1981.

Council approved in March 1978 the establishment of a review committee to review the development of Animal Science at the Waite Agricultural Research Institute and to make recommendations on its future. This review committee has as one of its members a distinguished animal scientist, Dr. K. A. Ferguson, Director, Institute of Animal and Food Sciences, CSIRO, Canberra. This review was still in progress at the end of 1979.

A review of the Centre for Environmental Studies resulted in a recommendation that the course for the degree of M.Env.St. should continue and that its inter-disciplinary character should be further developed. The establishment of a Diploma course was also suggested. It was proposed that two members of staff from other Departments should be formally assigned to work in the Centre with the Director of Environmental Studies, and that more suitable accommodation be provided for the staff of the Centre.

A major review of the Central Administration was undertaken during 1979. For some years, the University has been administered by a tripartite system consisting of the Offices of the Academic Registrar, Bursar and Registrar. In 1979 the Academic Registrar, Mr. H. E. Wesley-Smith, indicated to the Vice-Chancellor the likelihood of his retirement early in 1980. In addition the Registrar, Mr. A. E. Shields, will retire at the end of 1981. Consequently the Vice-Chancellor recommended to Council that a Committee of Administrative Review be formed with the following Terms of Reference:

- (1) to review, identify and make recommendations on the functions and responsibilities of the Central Administration (which is taken to include the Offices of the Vice-Chancellor, Academic Registrar, Bursar and Registrar) in the light of the present academic and administrative requirements of the University and any likely or fore-shadowed changes in those requirements, including any changes that may result from the report of the Council Committee on the Waite Institute (i.e. the Committee which was established in 1978);
- (2) having regard to the foregoing and to the forthcoming retirements of the Academic Registrar and the Registrar, to recommend to the Council on the organisational structure of the Central Administration with respect to the number, functions and responsibilities of the Senior Administrative Officers in the future and their responsibilities to and their relationship with the Office of the Vice-Chancellor;
- (3) to make such other recommendations to Council as the Committee deems appropriate to maximise the effectiveness of the administration of the University.

Council approved these terms in June 1979. Professor D. Corbett, one of the three Commissioners of the S.A. Public Service Board, who has occupied Chairs at Flinders University, the A.N.U. and the University of British Columbia, was appointed as an independent Chairman and the other four members each had special experience and knowledge pertinent to the requirements of the review. In view of its far-reaching implications, the Tertiary Education Commission agreed to finance the costs of the review under its Evaluative Studies Program. It was anticipated that the findings of the review would have relevance to the administration and decision-making processes of other Australian universities, in addition to the University of Adelaide.

The Report of the Committee was submitted to the Council in December 1979. Its main recommendations were as follows:

- (1) a new Committee of the Education Committee, to be entitled the Executive Committee, should be established to replace 11 of the existing Committees;
- (2) the Executive Committee should have 17 members, comprising a Chairman and five persons appointed by the Education Committee, and the 11 Deans of Faculties;
- (3) the present two posts of Deputy Vice-Chancellor should be discontinued (since it was expected that most of their duties would be assumed by members of the Executive Committee);

(4) the Central Administration (at present divided into three sections headed by the Registrar, Academic Registrar, and Bursar) should in future comprise two sections headed by the Registrar and Bursar, and the present administrative structure should be reorganised accordingly.

The Report was to be considered early in 1980, although the Council, taking into account an earlier Interim Report of the Committee of Administrative Review, had already decided that the two posts of Deputy Vice-Chancellor should not be continued beyond the end of 1980.

During the year, the University spent much time discussing the terms of its Submission to the Universities Council of the Tertiary Education Commission for the Triennium 1982-84, and by the end of the year the Submission was ready to be transmitted to the Council. The main thrust of the Submission was to draw attention to the real and substantial decline in available resources which had taken place since 1976 in all areas of the University, and to point out the threat that this decline in resources held out to the academic programs of the University, and especially to its research, which the University regards as its prime and distinguishing characteristic. In order to redress the inadequacies in funding, notwithstanding the current economic climate, the Submission went on to make a detailed and reasoned case for

- recurrent funds to be restored to a level consistent with the University's 1976 staffing complement;
- (2) restoration of cost supplementation for all non-salary items in the recurrent grant;
- (3) a substantially increased Special Research Grant;
- (4) substantially increased Equipment funds:
- (5) funds sufficient to support a realistic but minimal building program.

A major element in this program is a joint proposal by the University of Adelaide and Flinders University that a book storage building be constructed on the Flinders campus to relieve the pressure on the Libraries of both Universities by providing space to cover their book accommodation needs for the next 10-15 years.

Submissions were made during the course of the year to

- (1) the National Committee of Enquiry into Teacher Education: the main thrust of this submission was to reaffirm the University's special role in teacher education and the need to improve the quality of teaching in schools by improving the qualifications of teachers; and
- (2) the Joint Parliamentary Committee on Public Accounts: in this submission, the University acknowledged the need for accountability in the use of public funds and claimed that the present system of allocation of public funds through the Tertiary Education Commission, with its built-in checks and controls, ensured such accountability and at the same time respected the autonomy of universities by protecting them from direct political influence on their teaching and research functions; however, the University pointed out that accountability was a two-way process and that the Federal Government would be held accountable for any decline in academic standards resulting from reductions in financial support for universities.

On several occasions during the year, the University took the opportunity to protest against actual or impending Government decisions which it saw as adversely affecting its interests, or those of higher education in general. Among other things, the University

- reaffirmed its opposition to the reintroduction of tuition fees for tertiary education and to the introduction of any student loan scheme which would in any way replace student allowances;
- (2) called for an improvement in the level and conditions for the award of undergraduate student allowances, as well as increases in the value of postgraduate student awards;
- (3) protested against the introduction of visa fees for private overseas students; and
- (4) condemned legislation passed by the Federal Parliament authorising the Minister for Education to disapprove, for funding purposes, new teaching developments in universities.

In July, the Council learned with deep regret of the death of Mrs. Dorothy Mortlock. Mrs. Mortlock was an outstanding benefactor of the University, as was her husband, the late J. T. Mortlock. Mrs. Mortlock was a true philanthropist who gave generously to a wide range of institutions and causes. Her major interest at the University was the Faculty

of Medicine, which benefited handsomely from her gifts. She established anonymously an 'X Fund' which enabled visiting professors to be attracted to the Faculty of Medicine, allowed for the purchase of much-needed research equipment, and provided for a two-year Research Associateship for postgraduate students. The Trustees of the 'X Fund' have decided that the remaining available funds will be used on a continuing basis to found the Dorothy Mortlock Visiting Lecturer Fund. It is envisaged that two, and possibly three, visiting lecturers will come each year for short stays in the Faculty of Medicine. Mrs. Mortlock was also well known to University members because of her contributions to the upkeep of Martindale Hall, which had been owned by her and her husband and which was bequeathed to the University in 1965.

## 2. THE COUNCIL AND THE SENATE

In February, the House of Assembly elected Mr. T. H. Hemmings, M.P., to membership of the Council to replace Mr. J. C. Bannon, M.P., who had resigned with effect from 31 December 1978. Mr. J. H. Klunder, M.P., resigned in May and was replaced by Mr. G. J. Crafter, M.P. Following the commencement of the new Parliament in September, the Hon. C. M. Hill, M.L.C., the Hon. M. M. Wilson, M.L.C., and Messrs. Crafter and Hemmings vacated their offices as Council members. The Hon. Ms. J. A. W. Levy, M.L.C., was re-elected and the Hon. D. H. Laidlaw, M.L.C., was elected to membership by the Legislative Council, and Mr. L. M. F. Arnold, M.P., Dr. B. Billard, M.P., and Mr. F. R. Webster, M.P., were elected by the House of Assembly.

Ms. S. McCoy and Mr. J. Sandeman, members elected by the undergraduates in 1978, resigned during the first year of their two-year terms and Mr. K. J. Hinton and Mr. G. J. Maddern retired in October in accordance with the provisions of the Act. As a result of the election by the undergraduates conducted in that month, Mr. K. M. Bills and Mr. T. R. Ede were elected (for one year) to fill the casual vacancies resulting from the resignations and Messrs. Hinton and Maddern were re-elected for two-year terms.

At the November election by the Convocation of Electors, six normally occurring vacancies and two casual vacancies were filled. The normal vacancies resulted from the retirement, in accordance with the Act, of Professor F. G. Jarrett and Dr. E. H. Medlin (in the category "persons engaged in the employment of the University as members of the academic staff"), Dr. R. C. Heddle (in the category of "a person engaged full-time in the employment of the University otherwise than as a member of the academic staff or the ancillary staff"), and Miss V. T. Baddams, Mr. M. J. Evans and Dr. M. K. Smith (in the category "persons not engaged in the employment of the University"). The casual vacancies resulted from the resignation of Mr. G. J. Inns during the third year of his four-year term and the death of Mr. I. S. D. Hayward during the first year of his term. Professor Jarrett, Dr. Medlin, Dr. Heddle, Miss Baddams and Mr. Smith were re-elected and Mr. G. P. Taylor was elected to fill the normal vacancies and Mr. Evans and Ms. A. Deveson were elected to fill the casual vacancies for terms of three years and one year respectively.

At its meeting in November, the Senate re-elected Mr. W. M. Rogers as its Warden and Mr. T. J. Somerville as its Clerk. Mr. I. J. Bettison, Dr. J. R. Casley-Smith, Dr. I. G. Jarrett, Mr. R. W, Nettle, Ms. L. M. Oertel, Dr. A. M. Snoswell and Mr. M. B. Spurling were elected as members of the Standing Committee of the Senate.

#### 3. Academic Staff

#### (1) Deaths

The Council has recorded with sorrow the deaths of the following members of staff: Mr. P. G. B. Claridge, who was appointed Lecturer in Architecture in 1970 and

promoted to Senior Lecturer in 1972.

Dr. P. H. B. Talbot, who was appointed Senior Lecturer in Plant Pathology in 1960 and promoted to Reader in 1970.

# (2) Resignations

The resignations of the following members of staff took effect during the year:

Dr. A. E. Backhouse, Lecturer in Japanese Language, Centre for Asian Studies, to take up an appointment at Monash University; Mr. P. R. N. Beasley, Senior Lecturer in Restorative Dentistry, appointed Director, Restorative Unit, Dental Department, Royal Adelaide Hospital; Dr. M. L. Coates, Senior Lecturer in Zoology; Dr. A. F. Connon,

Reader in Obstetrics & Gynaecology, appointed Health Services Co-ordinator, S.A. Health Commission; Mr. H. L. Dossor, Reader in Music, appointed to a Chair at the Royal College of Music, London; Dr. P. J. Kemeny, Senior Lecturer in Politics; Dr. P. J. Lamb, Lecturer in Geography, appointed Scientist, Illinois State Water Survey; Dr. N. D. Lane, Lecturer in Library Studies, appointed Head, Library Studies, W.A. Institute of Technology; Dr. B. S. Niven, Senior Lecturer in Biometry; Professor D. E. Poswillo, Professor of Oral Pathology and Oral Surgery, appointed to Chair of Oral Surgery, London; Dr. D. J. Rampling, Senior Lecturer in Psychiatry, appointed Assistant Superintendent (Research & Development), Hillcrest Hospital; Dr. P. M. Young, Lecturer in Anatomy and Histology.

#### (3) Retirements

The following members of staff retired during or at the end of 1979:

Professor Sir Geoffrey Badger, who was appointed Lecturer in Chemistry in 1949, Senior Lecturer in 1950, Reader in 1951, and Professor of Organic Chemistry in 1954. He was appointed Deputy Vice-Chancellor in 1966, Vice-Chancellor in 1967 and (on retirement from the Vice-Chancellorship) Research Professor in 1977; Mr. M. M. S. Finnis, who was appointed Assistant Lecturer in Philosophy in 1941 and promoted to Senior Lecturer in 1950; Professor D. O. Jordan, who was appointed Professor of Physical & Inorganic Chemistry in 1954; Professor J. S. Robertson, who was appointed Professor of Pathology in 1949; Professor W. P. Rogers, who was appointed Professor of Zoology in 1952, and in 1962 to a Personal Chair in Parasitology within the Department of Zoology. In 1966 he transferred to the Department of Entomology at the Waite Agricultural Research Institute; Dr. J. R. Urwin, who was appointed Lecturer in Chemistry in 1951 and promoted to Senior Lecturer in Physical and Inorganic Chemistry in 1959 and to Reader in 1974; Professor A. T. Welford, who was appointed Professor of Psychology in 1968.

# (4) New Appointments

The appointments of the following members of staff took effect during the year:

*Professors*: Dr. M. S. Henderson, who was previously Professor of Accounting at Monash University, to the Chair of Commerce; Dr. R. F. Warner, who was previously Professor of Structural Engineering at the University of New South Wales, to the Chair of Civil Engineering.

Senior Lecturers: Dr. J. F. P. Kerin, Obstetrics and Gynaecology; Dr. N. A. Locket, Anatomy and Histology.

Lecturers: Dr. Susan B. Barham, Anthropology; Dr. G. C. Dandy, Civil Engineering; Mr. K. Eshraghian, Electrical Engineering; Dr. J. T. LaBrooy, Medicine; Dr. Meiko Ohso, Centre for Asian Studies; Mr. J. R. Piggott, Economics; Mr. L. J. Schmid, Civil Engineering.

#### (5) Distinctions

The title of Emeritus Professor of the University of Adelaide was conferred on Professors J. Carver, D. O. Jordan, W. V. MacFarlane, L. F. Neal, J. S. Robertson, W. P. Rogers, A. Rogerson and A. T. Welford.

The first four recipients of the University's new honorary degree of Doctor of the University had the degree conferred on them during the 1979 Commemoration Ceremonies. They were: Dr. B. R. Elliott, Mr. R. R. Hirst, Mr. G. Sved and Dr. J. Melville.

Among those honoured in the Queen's Birthday Honours list were Dr. J. J. Bray, who was made a Companion of the Order of Australia for 'services to the law, literature and the community'; Sir Geoffrey Badger, who was knighted for 'distinguished services to science and education'; and Emeritus Professor C. M. Donald, who was made a Companion of the British Empire.

In the Australia Day Honours list, Emeritus Professor C. J. Horne was awarded Membership of the Order of Australia (A.M.) for his services to literature, and Dr. Winifred A. Wall was also awarded Membership of the Order of Australia for her services to the community, particularly for her work in women's affairs.

Professor D. O. Jordan (Physical and Inorganic Chemistry) was elected President of the Royal Australian Chemical Institute for 1979.

Professor J. P. Quirk (Director, Waite Agricultural Research Institute), was elected as a Fellow of the Soil Science Society of America.

Professor D. Rowley (Microbiology and Immunology) was invited to serve on the World Health Organisation's Expert Panel on Immunology for a further five-year term.

Professor Sir Geoffrey Badger (Organic Chemistry) was elected President of ANZAAS until the conclusion of the 50th Jubilee ANZAAS Congress to be held in Adelaide in May 1980.

Dr. D. W. Griffin (Electrical Engineering) was granted the title of Adjunct Professor by The Syracuse University.

Mr. R. L. Newman (Commerce) was elected State President of the South Australian Division of the Australian Society of Accountants.

Dr. F. B. Sear (Classics) was elected a Fellow of the Society of Antiquaries of London.

The executive committee of the Deutsche Gesellschaft Für Lymphologie has awarded the title of Ehrenmitglied of the Society to Dr. J. R. Casley-Smith (Reader-in-charge, Electron Microscope Unit, Zoology) for his pioneering work in the field of the fine structure of lymphatics, tissue channels and blood capillaries.

#### (6) Conditions of Service

After considerable discussion spread over two years, the University implemented in 1979 a new Superannuation Scheme for academic and other senior staff.

Over a number of years the University had become increasingly conscious of the inadequacies of its old superannuation scheme based exclusively on endowment assurance policies, and indeed by 1978 there were no less than four supplementary schemes augmenting the basic F.S.S.U.-type scheme, all seeking to remedy varying problems perceived over a twenty year period. The result was an extremely complicated system which by 1977 was seen by the Staff Association as very unsatisfactory. Following representations from the Staff Association, the University commissioned a report from E.S. Knight & Co., a firm of Actuaries, and from a panel representing the Life Offices. As a result of these reports, a set of proposals was circulated to all members of the old scheme. In summary, these offered the choice of a pension initially indexed to the C.P.I. to the extent of 50%, or a lump sum, or any combination of both. The sum available as pension at normal retirement would depend on length of service, and would amount to 1.9% of salary for each of the first 20 years of service, and 1.4% of salary for each subsequent year. The basic cost of this was to be 18% of salary, of which 12% was to be paid by the University. The proposals were endorsed by a large majority of staff, and were thereafter put into a legal form, and a Trust Deed was executed by the University.

All members of the old scheme were offered the opportunity to join the new scheme as from 1 November 1979. For those who did not wish to join the new scheme, the old scheme continued, but all ex gratia payments were withdrawn from newly retiring staff after 1 November 1979 on the basis that the cost of these benefits had been taken up in the new scheme, in the increase of 2% of the employer's basic contribution. Of approximately 800 members of staff who belonged to the old scheme, only 15 chose not to transfer to the new scheme.

The new scheme incorporates within itself appropriate invalidity provision, and consequently the University's separate Invalidity Scheme has been withdrawn, although it continues to apply to former members of staff in receipt of invalidity pensions and to those members of staff who chose not to transfer to the new scheme.

#### (7) Staff Establishment

As noted elsewhere in this Report, the University has again had to cope with a year in which there has been no increase in the real level of its financial resources. Nevertheless it has had to meet the increased staffing costs caused by promotions, including 'incremental creep', and the overhead costs associated with such increases (i.e. superannuation, payroll tax and workers' compensation insurance).

The Departmental Staffing Committee began the year by following a policy designed to reduce the University's total expenditure on staff. The key elements of this policy were to continue its practice of reviewing all posts which fell vacant to see if they could be disestablished; to maintain a pool of vacant academic posts with a value of about \$500,000, releasing a post only when an additional post fell vacant; to delay replacement of non-academic staff (if the post was retained); and to lower the level of appointment when refilling vacancies. During 1979 four academic and professional posts were formally disestablished.

However, late in the year the Departmental Staffing Committee reviewed its financial position for the remaining two years of the current triennium and as a result was forced to institute much harsher cost-saving measures. It was decided that all tenured academic posts already vacant and any others falling vacant up to the end of 1981 would be left unfilled; and no financial compensation would be provided to Departments losing staff. As at 31 December 1979 some 32 tenured academic posts remained unfilled for financial

This decision was in part a reaction to the reduced level of staff turnover being experienced by the University. Turnover of tenured academic posts has fallen from 25 in 1975 to 18 in 1979; turnover in non-academic staff posts has fallen from 97 in 1975 to 62 in 1979. This undoubtedly reflects the reduced level of economic activity generally being experienced.

The University recognises that the decision to leave all vacant academic posts unfilled until at least the end of 1981 may well result in some disciplines in the University being placed in a crisis situation. A small amount of money has been set aside for 1980 and 1981 to meet these crises.

#### (8) Study Leave

Early in 1979, the Study Leave Committee concluded its review of the study leave scheme in the light of the recommendations contained in the Tertiary Education Commission's Report and the motions on study leave adopted by the Council at the end of 1978, and drew up a revised scheme. After extensive debate within the University the revised scheme was approved by the Council to take effect from 1980.

It was decided that the scheme should continue to be known formally as the 'study leave scheme' and not the 'outside studies program' as suggested by the T.E.C. Similarly, the main features of the previous scheme and its procedures, including the system of leave and travel 'units' and the method of calculating study leave grants, were retained in the revised scheme.

The granting of study leave as an 'entitlement' has however been replaced in the revised study leave scheme by a system of 'eligibility' for leave. Each application is to be considered in terms of the academic acceptability of the program proposed and the benefit accruing to the individual and the University, and is to be accompanied by a statement from the applicant's Department justifying the proposed program and commenting on his need for the leave. Other provisions which arose from the T.E.C.'s recommendations include the need to make out a special case for study leave involving a continuous period of absence outside Adelaide exceeding six months, and the requirement that any leave in excess of 14 days to attend a conference is to be treated as study leave.

During 1979 the Study Leave Committee considered 108 cases for leave commencing in 1980 and approved 107 applications with a total of \$226,700 in study leave grants. By comparison, in 1979, of the 121 cases approved, 117 members of staff took study leave

with a total of \$252,353 paid in study leave grants.

The University is now required to furnish the T.E.C. with an annual statistical return of the 'outside studies program'. The percentage of available staff participating in the 'outside studies program', as defined by the T.E.C., was 7.47% in 1978, 10.68% in 1979 (the last year of operation of the previous scheme), and a projected 7.73% in 1980. The T.E.C. envisaged a participation of 7% of available staff in any new scheme.

# 4. Non-Academic Staff

The conditions of service of non-academic staff continued during 1979 to be largely governed by the provisions of the two industrial agreements registered in the Industrial Commission of South Australia, one with the Staff Association in respect of professional staff and one with the Ancillary Staff Association in respect of ancillary staff.

During 1979 the Industrial Court of South Australia ruled that the Federated Clerks' Union of Australia (South Australian Branch) could not validly enrol as members under its constitution particular employees of the University graded as Professional Officers and Computer Operators. Consequently, the Union's application for an award of the Industrial Commission of South Australia was dismissed for lack of sufficient valid members of the Union.

The Ancillary Staff Association then sought to bring forward their application for an award of the Industrial Commission of South Australia covering all ancillary staff. The University of Adelaide in conjunction with most of the other Australian universities presented argument to the Commission that it should not proceed to make an award because of, *inter alia*, concurrent award proceedings before the Australian Conciliation and Arbitration Commission. This matter was not determined because the Ancillary Staff Association sought and obtained indefinite adjournment of their application. Subsequently, the Association entered into negotiations with the University for a revised functional agreement which, in accordance with the University's policy, was to reflect Australian Public Service standards. At the end of the year the Association had formally and publicly rejected the University's offer.

The Federated Clerks' Union of Australia (South Australian Branch) continued throughout 1979 to seek to represent its members within the University, and involved the

United Trades & Labor Council of South Australia in support of their claim.

In the Australian Conciliation and Arbitration Commission, argument was heard from the parties on the challenge by the Queensland Government of the Commission's jurisdiction to make an award binding upon the Queensland universities. The argument was concluded and the Commission reserved its decision. At the end of the year the Commission decision was still awaited.

A significant change in the conditions of employment of ancillary staff during 1979 was the approval by Council of rules permitting ancillary staff to take leave with pay in order to undertake courses conducted by the Trade Union Training Authority.

#### 5. ACADEMIC MATTERS

#### (1) Degrees in Architecture

After extensive discussion, the University agreed to course changes in Architecture as a result of which there will, from 1980, be two undergraduate degrees each of three years duration, in place of the five-year Bachelor of Architecture. The first degree, the Bachelor of Architectural Studies, will provide a non-professional course about the built environment. It is designed to give a basic University education which can lead to several different kinds of employment, or serve as an introduction to further university studies, either professional or academic. In keeping with the aims of the first degree is the fact that students will be encouraged to take elective subjects from other faculties of the University and from other institutions. Conversely, opportunities are to be provided for students in other faculties to take single subjects from the Department of Architecture.

The second degree, the Bachelor or Architecture, will be a professional degree concerned with education for the practice of Architecture. It is accessible only after previous studies, usually a first degree of some kind. Students who have completed two years of the B.Arch.St. course may apply for entry to the new B.Arch. course, and if accepted could complete the new course and obtain a professional qualification after five years of study. Provision was also made for an additional Honours year, leading to postgraduate studies. Assistance in the establishment of the new courses was provided from the General Development Grant, enabling the appointment of a half-time temporary lecturer during 1979, and the creation of a two-year limited term lectureship for 1980-81.

(2) Master of Urban and Regional Planning

The structure of the course for M.U.R.P. was completely revised and a new degree established under which administration of the course and degree were transferred from the Faculty of Architecture and Planning to a new Board of Studies. However, because of the financial stringency the University was unable to provide for the appointment of a Director of Studies and associated staff, and it was decided that no enrolments would be accepted for the course in 1980.

#### (3) Master of Legal Studies

In 1980 the degree of Master of Legal Studies by course-work is to be introduced in order to offer the opportunity of advanced work to those holding positions within the profession, the magistracy and the judiciary. The course involves the satisfactory completion of four subjects and submission of two research papers, and may be taken by either full-time or part-time work. Assistance in mounting the course has been provided by means of the General Development Grant.

#### (4) Interactive teaching of computing

Late in 1978 the University agreed to the acquisition of three VAX 11/780 computers, and the General Development Grant was used to purchase 120 terminals and establish laboratories in order to begin interactive teaching of computing from the first term of 1980. During 1979 work has proceeded on the preparation of the teaching material and the necessary software. This work is equivalent to the production, from scratch, of a laboratory program for over one thousand students in first, second and third year classes.

#### (5) New courses under consideration

The University proposed to introduce, probably in 1981, a Diploma in Environmental Studies (to be awarded to candidates who successfully complete the course-work for the degree of Master of Environmental Studies but not the dissertation) and a degree of Master of Agriculture, by course-work, in pest management. Both proposals require the approval of the Senate before they may be introduced.

#### (6) General Development Grants

As reported last year, the availability of a General Development Grant for the first time made it possible to introduce four new academic projects which could not otherwise have been funded. During 1979, two further projects were proposed for funding—a part-time academic appointment in Architecture, to assist with the development of the new degree structure referred to in (1) above; and the establishment of a 'wet laboratory' in the Geography Department. Unfortunately, the Universities Council refused to sanction the second of these proposals, on the ground that it did not fall within the proper purpose of a general development grant. A number of other projects were recognised as having high academic merit, but could not be funded within the grant made available.

#### (7) Clinical University Titles

The regulations, approved last year, to permit the conferment of clinical University titles on new members of staff of the Teaching Hospitals and the Institute of Medical and Veterinary Science were extended, in modified form, to cover existing members of staff of those bodies, as well as of Affiliated and Associated Hospitals. At the end of the year the new procedures were being invoked in respect of over 200 members of staff of these institutions who were considered to be suitable for holding such titles and who, in return, would be expected to provide a considerable (unpaid) contribution to teaching in the University's medical departments.

#### (8) Forensic Odontology

A Forensic Odontology Service has been set up in the University's Dental School. It is manned by a half-time Senior Lecturer, and the additional costs involved are being met by the State Government. Substantial facilities within the Faculty of Dentistry will be made use of, and the Service is expected to make a substantial contribution to forensic science.

#### (9) Research in Transport Policy

The State Government has also provided the funds required to enable the University to appoint a professorial research fellow in transport policy. The State Government has been supporting transport research at the two South Australian Universities since 1975 through a postdoctoral fellowship scheme and a postgraduate scholarship scheme. The new scheme is in addition to these two schemes and is intended to provide a fellowship at professorial level at either of the two Universities. The first fellowship is to be held at Adelaide University for a maximum period of five years from 1980.

#### 6. STATUTES AND REGULATIONS

#### 1. Statutes

(a) The following Statute was repealed and replaced by a new Statute:

Chapter I.—Of the Chancellor and Deputy Chancellor—to provide for more than one Deputy Chancellor and to define the terms of office and duties of a

Deputy Chancellor in the absence of the Chancellor.

- (b) Minor amendments to the following Statutes were made:
  - (i) Chapter IA—Of the Vice-Chancellor and Deputy Vice-Chancellor—consequential on amendments previously made to the Statute.
  - (ii) Chapter X.—Of the Faculties—to provide for the addition of Deputy Chancellors to membership of Faculties and Boards of Study; and the addition of those whom the Faculties concerned wish to have as members.
  - (iii) Chapter XII.—Of the Board of Discipline—to provide that the Deputy Chancellors be members of the Board.
  - (iv) Chapter XIV.—Of the John Howard Clark Prize and the John Howard Clark Scholar—to provide that the prizeman may proceed to either the degree of Doctor of Philosophy or the degree of Master of Arts and to remove an anachronism relating to the time specified for submission of thesis.
  - (v) Chapter XXV.—Miscellaneous—to remove infelicitous phrases which might be regarded as having sexist connotations, and to remove some anomalies or incongruities.
  - (vi) Chapter LXIII.—Of the William Gardner Scholarship and the William Gardner Prize—to provide more equitable opportunities for the award of the Prize.
- (c) The following new Statute was made:

Chapter LXXXVII.—Of the Abbie Memorial Lecture—to govern the Memorial Lecture which was established by way of endowment.

## 2. Regulations

- (a) The following new regulations were made:
  - (i) Of the degree of Bachelor of Architectural Studies
  - (ii) Of the degree of Bachelor of Architecture
  - (iii) Of the Diploma in Environmental Studies
  - (iv) Of the degree of Master of Legal Studies(to provide for the new courses referred to in Section 5 above).
- (b) Minor amendments were made to the following regulations:
  - (i) Of the degree of Bachelor of Architecture (to allow for the change-over to the new B.Arch. course).
  - (ii) Of the degree of Bachelor of Arts (to remove provisions no longer applicable because of effluxion of time).
  - (iii) Of the degree of Bachelor of Laws (to provide that a candidate's enrolment for the Honours dissertation be subject to the approval of the Department of Law).
  - (iv) Of the degrees of Bachelor of Medicine and Bachelor of Surgery (to permit students to interrupt their course to proceed to the Honours degree of B.Med.Sc. and to provide for classification of results in all component subjects of the M.B., B.S. course).
    - (v) Of the degree of Bachelor of Science in the Faculties of Science and Mathematical Sciences (to enable the Faculties to determine and define subjects which contain a substantial amount of the same material).
  - (vi) Of the degree of Master of Education (to remove the requirement that the further course-work which a student can do for Part II of the degree course must be approved by the Faculty in each individual case although still requiring that the subject of the dissertation must have Faculty approval).
  - (vii) Of the degree of Master of Dental Surgery (to provide specifically for half-time candidates for the degree).
  - (viii) Of the degree of Master of Business Management (to remove a regulation enabling Diploma candidates to complete the requirements for the degree of Master).
  - (ix) Of the degree of Master of Environmental Studies (to permit consideration by the Board of Environmental Studies of applicants to the Course who do not hold a degree of a University or who hold qualifications not regarded as equivalent to a degree of the University).
- (c) The following regulations were repealed and new regulations substituted therefor: Of the degree of Master of Urban and Regional Planning (to provide for the changes referred to in Section 5(2) above).

#### 7. Reports of Faculties

The following information has been provided by the Deans of several Faculties:

#### (1) Faculty of Agricultural Science

- (i) The Faculty continues its teaching philosophy of providing an education producing scientists with interests and orientation deriving from agriculture and land use. The development of expertise in problem isolation and resolution means that graduates are able to find employment in a diverse number of fields in research or advisory capacities both within Australia and overseas. The recent trend towards the private rather than the public sector providing the majority of positions for B.Ag.Sc. graduates is continuing. Although no major changes were made to the structure of the B.Ag.Sc. course in 1979, development continued within subjects. Agriculture IV, the final subject in the compulsory 'Agriculture Sequence' has evolved into a course allowing students an opportunity to enhance their own self-confidence in public speaking and to conduct discussions with decision-makers in Agriculture. It is a popular course with a large input from invited speakers—State Ministers of Agriculture, Chiefs of CSIRO Divisions, office holders in Elders-GM, ICI and Penfolds Wines—as well as a student-assessed student seminar program.
- (ii) The Waite Institute held Open Days on 12 and 13 October. Some 4,500 people attended, including many school students and members of Agricultural Bureaux. There were 64 Exhibits covering the full range of the Institute's research activities.

#### (2) Faculty of Architecture and Planning

- (i) The major concern of the Faculty was the proposed new course structure, which was formally approved late in the year (see section 5(1) above). The new structure reflects a broadening of educational aims in that as well as educating for professional practice it will now be the task of the Faculty to provide an education concerning Architecture and the built environment for a broader group of people than those intending to become architects.
- (ii) In addition to engaging in consultancies and serving on professional bodies, a number of staff are members of various outside bodies, such as the South Australian Heritage Committee, the Civic Trust of South Australia, the Indicative Planning Council for the Housing Industry and the Public Examinations Board of South Australia. Until the end of 1979 Professor D. A. L. Saunders was Australian Chairman of the International Council on Monuments and Sites. Mr. J. D. Kendrick was elected the Australian representative to the Commission Internationale L'Eclairage.
- (iii) The research interests of the staff are considerably varied in nature and fall broadly into the following categories:

Building Science, which encompasses such areas as the weathering of buildings and designing for variability of daylight.

Architectural History and Conservation Studies.

Housing, in particular designing for human activities, for the elderly and for aborigines.

Architectural Theory and Appreciation, and aspects of the relationship between man and his environment.

Architectural Education.

Urban and Regional Planning.

A series of *Architecture Papers* was instituted in the Department in 1977 by Professor D. A. L. Saunders. In 1979 four Working Papers were produced. Two of these papers dealt with the history of South Australian Industrial Buildings (the work for these was funded by the National Estate) and the other two dealt with housing (one of these papers was funded by the South Australian Housing Trust). The Department also continued the well-known series of *Urban and Regional Planning Papers*. Two Working Papers were produced dealing with different aspects of urban planning problems.

(iv) Mr. P. G. B. Claridge, whose death was reported in section 3(1) above, had been very interested in the process of teaching and in architectural education in general. Before his death, he had been invited to give a paper at the Berlin Conference of the European Association for Architectural Education which was held in November 1979. The paper, entitled 'Studio Design Work in First-Year Architectural Education', was delivered for him by the President of the E.A.A.E. and has since been published.

## (3) Faculty of Dentistry

- (i) 1979 saw the introduction of several changes which have both immediate and long term significance for the Faculty of Dentistry. Several resignations served to reflect the fragile situation that a Faculty such as Dentistry finds itself in when it loses key personnel. Due to the University's policy of freezing all vacant positions, the Faculty now has the Chair in Dental Health, the Readership in Periodontology, and the Senior Lectureship in Restorative Dentistry frozen. In addition, lectureships in Oral Diagnosis and Periodontology are in jeopardy. A faculty of the size and nature of Dentistry needs absolute flexibility to decide the best dispersement of the finances available for staffing, and the present situation places at risk its obligation to graduate qualified dental graduands who have received instruction in a wide spectrum of specified courses.
- (ii) The Department of Oral Biology has transferred to the 6th floor of the Old Medical School vacated by the newly established Department of Pharmacology which is now located in the new Medical Sciences Building. Limited funds were provided for repainting and general refurbishing of the area. The accommodation provided results in a small but significant increase in the number of research laboratories available and an increase in the space available for the personnel. A most important adjunct to the move has been the inclusion of research staff of other dental departments, notably Restorative Dentistry and Dental Health, in the confines of the laboratory space allocated to Oral Biology. This, besides having the effect of alleviating space problems in their own departments, will have a decided impact on the overall research programs of the individuals and on the collaborative research carried out in the Department of Oral Biology. The space vacated by the Department of Oral Biology will be used to provide increased postgraduate and undergraduate study areas and seminar facilities.
- (iii) A very significant academic thrust was initiated in 1979 as a result of prolonged discussions to consider the re-organisation of the dental school departmental structure. A number of interdisciplinary teaching groups have been formed to cover specific areas but with a broad based composition in terms of staff. The Curriculum Committee has been replaced by the Curriculum Co-ordinating Committee with an Associate Dean of Curricular Affairs as its chairman. Whilst departments still retain control of their staff in terms of day-to-day matters, especially concerning finances, the intention of the Faculty is that the academic requirements as decided by the Curriculum Co-ordinating Committee and agreed to by Faculty take precedence over departmental deployment of staff.
- (iv) The Council, on the recommendation of the Faculty, decided to reduce the student quota for 1980 from 55 to 40 students. This decision was made in the light of depleted teaching resources, both with respect to staff and the inability of the Hospital, suffering from severe budget cuts, to guarantee to update and in general maintain the clinic equipment at an optimal standard.

#### (4) Faculty of Law

The most significant development in the Faculty of 1979 was the decision to introduce the Master of Legal Studies degree in 1980. This provides *inter alia* a facility for members of the legal profession to deepen their understanding of certain areas of the law, and is thus related to the University's responsibility to the wider community. Certain optional undergraduate subjects have been broken up into units in order to increase the range of choice of subjects available.

#### (5) Faculty of Mathematical Sciences

The groundwork was laid during 1979 to enable the University to modernise university teaching in computing and related subjects. The University placed an order for the first of several VAX 11/780 machines. The new teaching program will be based on interactive methods using several laboratories of terminals. Students will no longer

have to rely on decks of punched cards. More importantly, they will be able to see the results of their efforts while the problem is still fresh in ther minds and they will learn to manipulate data held in electronic form. The new equipment will prepare the students far more adequately for conditions that they will experience when they graduate.

The new equipment is being purchased mainly from a General Development Grant and will free the present Cyber 173 computer almost entirely for the "heavy" users such as research and administration.

Dr. C. J. Barter, Senior Lecturer in Computing Science, is leading a team which is producing the teaching material and software specially tailored to the needs of Adelaide students.

#### (6) Faculty of Music

- (i) During this year the Faculty resolved several important matters of internal policy and reassessed its role in post-secondary music in South Australia. First, the Faculty reaffirmed its policy of auditioning all prospective students prior to admission. This safeguarded the position of performance and composition in the degree and consolidated the 1978 B.Mus. revision which gave these subjects up to 50 per cent weighting in the course. Secondly, the Faculty, after much discussion, clarified the nomenclature and administration of music in the University. From 1980 the name Elder Conservatorium of Music will be retained and the name Department of Music officially withdrawn. The Conservatorium will have the status of a department and will be led by a Director, with the status of a departmental chairman. There will be two Deputy Directors who will be responsible to the Director for the practical and academic schools of the Conservatorium respectively.
- (ii) The Faculty took steps to reassert the role of the Conservatorium as the leading musical institution in the State and to remedy duplication of courses in other institutions. A Liaison Committee was formed with the School of Music of the Adelaide College of Further Education, which has close historical links with the Conservatorium and whose courses are complementary to those of the Faculty. On the other hand, the Faculty expressed its opposition to the duplicatory courses in performing arts and opera at the Adelaide College of the Arts and Education and urged both TEASA and the South Australian Minister of Education to withdraw these courses. The Faculty regards the unco-ordinated growth of music courses in the State as both wasteful of resources and educationally unjustified.
- (iii) One of the most notable events of 1979 was the Third Symposium of the International Musicological Society which was hosted by the University. This symposium, which attracted many well-known international scholars to Australia for the first time, brought considerable benefits for teaching and research. Other notable events included a special orchestral concert under the direction of Mr. Elyakum Shapirra, Chief Conductor of the Adelaide Symphony Orchestra, and a special concert for matriculation music students. The Conservatorium gave over 150 concerts by staff and students, and the University Music Society celebrated its Silver Jubilee. In October the Young Musicians' Trust, a society for assisting young musicians, was officially launched in Elder Hall by Mr. Yehudi Menuhin, and in December the University, following a promise of assistance by the South Australian Minister of Education, retained its role in administering the A.M.E.B. examinations in South Australia. The situation will be reviewed in 1981.
- (iv) In February, the refurbishing of the Elder Hall reached its culmination with the installation of a magnificent new organ designed and built by Casavant Freres of Quebec, Canada. The organ is fully mechanical and is of the French classical tradition, although a few concessions have been made to post-baroque style. In June it was inaugurated by a series of four special concerts.

## (7) Faculty of Science

(i) Following the decision to allocate General Development Grant funds to the establishment of a new Chair in Clinical Pharmacology, the Department of Human Physiology and Pharmacology was divided into the two Departments of

Physiology (in the Faculty of Science) and Clinical and Experimental Pharma-

cology (in the Faculty of Medicine).

(ii) Miss E. M. McBriar of the Department of Geology has pursued vigorously and successfully the preservation of geological sites of special significance in teaching and research. The Geological Monuments Sub-committee which she convenes has won for the S.A. Division of the Geological Society of Australia a further grant of \$4,000 from the Department of Home Affairs under the 1979/80 National Estate Program to continue documenting such sites. Miss McBriar and Dr. B. Daily serve on the core group of the panel evaluating nominated national areas for the Register of the National Estate.

(iii) Emeritus Professor M. F. Glaessner and Dr. B. Daily of the Department of Geology visited China in May-June 1979, at the invitation of the Ministry of Education, People's Republic of China. They lectured on and discussed problems of Precambrian-Cambrian geology and palaentology with Chinese colleagues both in the field and at several major research institutes. They also gave specialist lectures to the staff of the Wuhan College of Geology, one of five such colleges which are largely responsible for the training of professional geologists in the

People's Republic of China.

(iv) Reference has been made in the last two years' Reports to the measures taken by the University of Adelaide to regulate research on recombinant DNA (known colloquially as 'genetic engineering'). Actual research in this field began in earnest early this year when a new special security laboratory was commissioned.

The University spent \$50,000 up-grading an area of the Darling Laboratories (Department of Biochemistry) to produce a 21 square-metre laboratory suitable for medium-security level recombinant DNA research. The laboratory has its own air-conditioning system with special filters to remove aerosols and ensure that they are not recirculated or exhausted from the laboratory. All protective clothing worn by research workers will be kept in the laboratory and will be sterilised before it leaves the C<sub>3</sub> laboratory. A through-the-wall autoclave ensures that all glassware etc. leaving the laboratory is sterilised on the way out.

Recombinant DNA research projects are scrutinised nationally by an expert group set up by the Australian Academy of Science and at the University of

Adelaide all research is supervised by its Biohazards Committee.

The national committee grades experiments according to the degree of security required—ranging from  $C_0$  (ordinary laboratory practices in an ordinary laboratory) to  $C_5$  (high level security). The highest security level experiments to be conducted at Adelaide will be  $C_3$ . Experiments above that level will be conducted at a national facility which the Federal Government is building in Melbourne.

All research workers, as well as the experiments, have to be assessed by the University's Biohazards Committee. The Biohazards Committee will only consider research proposals after they have been graded and approved by the Australian Academy of Science committee. All licensed staff have to complete a special safety training course. The Biohazards Committee reports all developments at each monthly meeting of the University Council.

#### 8. Research

150 grants were made to members of staff of the University by the Australian Research Grants Commission. These were distributed as follows:

Commission. I nese were distributed as follows.	
18 projects in the Humanities and Social Sciences	152,011
18 projects in the Physical Sciences	125,321
26 projects in the Chemical Sciences	282,075
57 projects in the Biological Sciences	535,714
19 projects in the Earth Sciences	175,391
12 projects in the Engineering and Applied Sciences	125,679

The total sum involved in ARGC grants to the University of Adelaide was \$1,396,191. This represents 11.85% of the ARGC grants awarded to all universities: in fact, only two universities received more in grants, and only one was awarded more grants than Adelaide.

The National Health and Medical Research Council awarded 21 grants (13 new and 8 continuing projects) totalling \$276,228, for projects concerned with medical research, and scholarships for 5 medical and dental postgraduate research scholars.

In the areas of research specifically concerned with primary industry, grants awarded included 13 grants from the Wheat Industry Research Council (\$209,741); 7 grants from the Reserve Bank under the auspices of the Rural Credits Development Fund (\$134,506); and 2 grants from the South Australian Barley Improvement Advisory Committee (\$147,079); the Australian Wool Corporation supported 9 projects with grants totalling \$96,428; and the Australian Meat Research Committee funded 3 research projects in the Departments of Agronomy and Entomology with grants of \$89,949.

The Australia Council gave renewed annual support of \$60,000 for administrative and

operating expenses in connection with the Centre for Aboriginal Studies in Music.

The South Australian Department for the Environment awarded a grant of \$90,000 over three years to Mr. R. Culver, Department of Civil Engineering, for the project "Operation of a computer based wave recording system", and the South Australian State Energy Advisory Committee supported the project "Mixing mechanisms and their enhancement for the combustion of gaseous and particulate fields" under the direction of Professor R. E. Luxton and Dr. C. J. Abell, Department of Mechanical Engineering, by a grant of \$32,500.

The Victorian Railways awarded a grant of over \$57,000 to Dr. N. Kay, Department of

Civil Engineering for a project entitled "Design of corrugated metal conduits"

The Research and Publications Committee had at its disposal a budget of \$1.25 million which it allocated to various categories of research endeavour by staff members and to the training of postgraduate students. 51 specific research projects being undertaken by staff members were funded by the Committee with grants totalling \$110,000.

The following table shows the total funds allocated to members of staff of the University in 1979 for specific research projects from various categories of financing agencies:

Source of Funds	Amount \$000
University of Adelaide	110
Federal funding agencies	
(ARGC, NH&MRC, ERDC, etc.)	2,054
Industry funds	524
State Government funds	417
Others	464
	\$3,569

40 new postgraduate scholarships were offered by the Research Committee in 1979, the same number as in the previous year. Including the 40 new awards, 152 students received support from University research funds for all or part of the year. In addition, the Commonwealth Government awarded 41 postgraduate research awards.

The Research Committee gave limited support to 35 University staff members proceeding on short overseas conference leave and also assisted with funding of visits to the University by 10 distinguished scholars from overseas.

During the year the Research and Publications Committee also set aside funds to create three research associateships for two years each. These posts were advertised widely in the latter part of 1979. The Committee envisages providing funds to enable further research associates to be appointed when the current appointments terminate.

The Council has agreed to the establishment of honorary posts of "Field Associate". This title is intended to recognise the research assistance that is received by many departments and individual staff members from various persons who are not associated formally with the University. Such persons may be, for example, amateur naturalists who collect and donate regularly species of animal and plant material, farmers who provide access to their land, space for research, and other assistance, or wild life rangers in remote areas who assist members of staff engaged in field activities. The first awards of the title were made to Dr. T. J. Hillman, Mr. G. L. Miles and Mr. K. McDonald, all of whom have provided valuable research assistance in the field to staff and students of the Department of Zoology.

The following are some examples of specific research projects being conducted in the University. They are mentioned in order to indicate the range of research projects being undertaken by members of staff of the University, and are, of course, only a small sample of the total research effort:

- 1. A project aimed at cataloguing all printed items published before 1801 and now held in public and institutional libraries and in private hands in South Australia is under way. It is part of a larger scheme which will bring together in machine-readable form the titles, descriptions and locations of all books and other printed material, including periodicals and ephemera, printed before 1801 and now in public, institutional and private collections in Australia and New Zealand.
  - The Early Imprints Project in South Australia has been made possible by an ARGC grant of \$12,862. The Australian and New Zealand project was initiated in 1976 by Dr. Alan Brissenden, a Senior Lecturer in English, and Dr. Wilfred Prest, a Reader in History, and is being co-ordinated by the Humanities Research Centre of the Australian National University.
  - It will contribute to a still larger project, already begun in Britain and the United States, known as the ESTC—the Eighteenth Century Short Title Catalogue—which will provide a list of titles and major locations of books and other printed materials in English, wherever produced, between 1701 and 1800, and all material regardless of language printed in Great Britain and America during the period. Short title catalogues already exist for the period from the introduction of printing in England in the 1470s to 1640 and for the period 1641 to 1700. Few Australian holdings are listed in these, and the Early Imprints Project will cover the whole period from the 1470s to 1801. It has been estimated that there may be 100,000 items in Australia and New Zealand. (The Barr Smith Library's estimated holding is about 3,000).
- 2. Professor P. H. Glow (Psychology) is continuing research into the origins and nature of Hyperkinetic Impulse Disorder (HID). The disorder, commonly called hyperactivity, is complained of by the parents and teachers of 6% of primary school children in Australia. Its characteristics include apparent overactivity, inattentiveness, impulsiveness and inability to persist. One of the features of the disorder is that complaints originate from parents and teachers, and not from the affected children, who see nothing peculiar about their behaviour.
  Professor Glow and Mrs. R. A. Glow, a clinical child psychologist (Research Fellow in Psychology), began their work on the disorder by studying the effects of stimulant drugs on animal behaviour. Their main research interest since then has been to undertake cumulative research to look at the disorder systematically. The collection and collation of the data took 2½ years. It has shown that the clinical syndrome of HID is recognisable from parent and teacher reports and that the prevalence of HID in Australia is consistent with estimates in the UK and the US. They are now turning their attention to devising objective performance measures of the disorder.
- 3. Dr. A. H. Rogers, a Senior Lecturer in Oral Biology, is working on two projects which are advancing knowledge about dental caries—one of the most widespread diseases affecting mankind. Evidence from the first project strongly suggests that dental caries can be transferred from one person to another within a family group, probably via saliva. The second project is aimed at finding and introducing into the mouth an organism that will not produce dental caries and will keep out organisms that do.
- 4. The use of the voice for identification in telephone transactions is currently being researched by Professor R. E. Bogner (Electrical Engineering). This is an extension of his interests in signal processing. The work will enable a person's voice to be used to replace signatures on cheques, or to allow credit card transactions to be made by telephone, and should have practical application in two years' time. Talker verification, as it is called, has been used for some years in control of entry to security areas, but the telephone has problems of frequency distortion which make different techniques necessary.
- 5. Mr. A. P. Moore, a Senior Lecturer in Law, is researching the situation of persons who fall substantially into arrears with their commitments under consumer mortgage agreements. The research is aimed at providing a better idea of the reasons for debt default in Australia so that more informed regulation of the rights of these persons and

their creditors can be made. The study is related to Mr. Moore's work as a consultant for the Australian Law Reform Commission in its reference on consumer mortgage debts in the Adelaide Local Court. Consumer mortgage agreements cover individuals borrowing money to buy things for their own use. The sort of debts that people get into problems with are loans for major items, most often cars.

6. Human reproductive process may eventually be controlled through knowledge of processes governing the pineal gland, according to Dr. C. D. Matthews, Senior Lecturer in Obstetrics and Gynaecology. This hypothesis has grown out of current research being done on problems of infertility at the Queen Elizabeth Hospital. The relationship between the pineal gland and reproduction is being studied by Dr. Matthews and Dr. R. F. Seamark, Reader in Obstetrics and Gynaecology. The pineal gland, which is centred in the brain, has only recently been shown to have a function in the human body. It has been shown in the last few years that it plays an important part in the reproductive chain of control in animals, regulating their season of reproduction.

Dr. Matthews' studies developed out of the work being done by the research team at the Queen Elizabeth Hospital into male and female infertility. Pioneering work into problems of male infertility has been done at the hospital, particularly in the area of artificial insemination, the hospital having the first semen bank in Australia and one of the first in the world.

7. Extended study into the relationship between depression and chronic pain is being carried out by Professor I. Pilowsky (Psychiatry Department) under an annual grant of \$13,500 from the National Health and Medical Research Council. The research is being conducted at the Royal Adelaide Hospital's Pain Clinic, which treats patients who are suffering from intractable pain that does not respond to conventional therapies.

Chronic pain presents a massive problem both within Australia and the rest of the world, although research into it is a relatively new area of study. The cost of treating chronic pain runs into millions of dollars a year through days lost off work, pensions, sickness payments and multiple operations, many of which do not succeed.

- 8. Current work into energy transformations within plant cells has radically changed earlier beliefs that cell membranes function purely as convenient supports on which reactions can occur. Dr. J. T. Wiskich, Reader in Botany, is engaged in research in this field, studying the similarities and differences among various plant tissues.
- 9. The Physics Department's Buckland Park and St. Kilda Field Stations are playing a vital role in research of the "middle atmosphere"—the least understood region of the earth's atmosphere. Research at both stations involves the use of radio waves to measure wind velocities at heights of between 50 and 150 kilometres above ground level

Most of the work at Buckland Park is carried out by Dr. B. H. Briggs, a Reader in Physics, and Dr. R. A. Vincent, a Senior Lecturer in Physics, with many fourth-year and postgraduate students also being involved. Another smaller array of instruments is owned and operated in Townsville by the Physics Department. This enables researchers to compare tropical high altitude winds with those at a medium latitude. The St. Kilda work is complementary to the work at Buckland Park. At St. Kilda, Dr. W. G. Elford, a Reader in Physics, measures atmospheric velocity by radio observations of meteor trails.

The Buckland Park array is the biggest in the world to be used for atmospheric physics and the St. Kilda station is one of only two radio meteor wind systems in the southern hemisphere. As a consequence, the two stations will be very much involved in the international Middle Atmosphere Program to begin in 1981. This program will bring together atmospheric physicists from around the world to carry out a co-ordinated study of the middle atmosphere.

One of the main questions to which the results of this research can be applied is that of the role of the middle atmosphere in determining climate and climatic changes. Meteorologists, among others, are becoming increasingly interested in this question and there is a great deal of controversy about the relation between the middle atmosphere and lower atmosphere weather.

- 10. The Geology Department's long-standing interest in Antartica is being sustained in Dr. P. R. James's work in Enderby Land during the 1979-80 ANARE summer program. This work, extending earlier (1977-78) field and laboratory studies on rocks from Enderby Land, parallels a program begun in the Vestfold Hills by Drs. James and R. L. Oliver in 1976-77.
  - Dr. R. J. F. Jenkins is using fossil penguins in studying the palaeogeography of the Antarctic region during the Tertiary period (from about 65 to 2 million years ago). Dr. Jenkins first became interested in fossil penguins when a partial skeleton of one was found at Maslins Beach in 1968. This form was very large and was subsequently described as being a new species. Its age was Upper Eocene (about 42 million years ago)—the same age as skeletons of other large penguins found in New Zealand.
- 11. Dr. C. J. Barter, a Senior Lecturer in Computing Science, is making major advances in the field of multi-process programming. Most programming languages and systems force a program to be specified as a single sequential process, even when the problem which gave rise to the program is patently not. Computing scientists are investigating programming systems which allow a program designer not only to conceive of solutions involving multiple processes, but directly to state the design in the same terms. Dr. Barter has developed a new language design which has been used on a variety of programming problems, and holds the promise of further developments in programming.
- 12. In the Department of Economics,
  - (a) Dr. B. L. Bentick has continued his research on the theory of land taxation with respect to the viability of forests and the viability of rural enterprises subject to urban pressures;
  - (b) Mr. D. T. Healey has continued his work on the development and trade problems of the Asian developing countries with particular reference to the implications for Australia;
  - (c) Dr. T. J. Mules has continued his active involvement with Departments of the South Australian Government on their Input-Output Project. Input-output tables have been prepared for the State of South Australia and for regions within the State. He has given seminars to Government officers on the methodology of input-output and he is currently involved in working with them on applications of the input-output tables;
  - (d) Mr. J. R. Piggott has continued his research on "The General Equilibrium Analysis of Taxation Policy". He received a Reserve Bank grant to work on the general equilibrium analysis of Australian Taxation Policy;
  - (e) Mr. N. J. Thomson has conducted research on estimating the revenue-raising capacity of Local Government, and an analysis of Pricing Policies for Infrastructure Services in Rural Areas.

#### 9. THE BARR SMITH LIBRARY

During 1979 the University issued 268,675 extramural loans to personal borrowers, an increase of 4.9% compared with the figure for 1978. Additional items lent for use only within the Library included 90,460 from the Undergraduate Reserve (a decrease of 9.2%), 17,173 from the Medical Library Reserve, and 12,267 from the Special Collections Section (an increase of 73.9%). The Library satisfied 36,079 requests for interlibrary loans, an increase of 1% compared with the previous highest total reached in 1978. The items lent included 29,565 to libraries within South Australia, and 6,514 to libraries in other States and countries. The Library received 4,448 loans from other libraries.

In furtherance of the Library's teaching function members of the staff presented 67 seminars which catered for 327 advanced students and academic staff members; and they conducted 330 tours and seminars which catered for 2,532 undergraduates. This activity, a responsibility of the Subject Librarians, again showed a considerable advance over the achievements of previous years, particularly in the number of seminars of from one to three hours' duration presented to groups of honours and postgraduate students and academic staff.

Holdings at the end of 1979 were as follows: Central Library 825, 016 volumes; Law Library 62,242; Medical Library 91,561; Music Library 2,603 bound volumes of scores and 14,965 pieces of music in sheets; and the Waite Agricultural Research Institute Library 36,021 volumes; making total holdings equivalent of 1,032,408 volumes. This total includes items in microform equivalent to 89,925 volumes, and allows for 2,033 volumes which were withdrawn from the collection during the year.

Accessions of catalogued items in 1979 numbered 36,786 volumes, the equivalent of a further 5,490 volumes in microform, and 508 pieces of music in sheets. The reduction of 19.22% by comparison with 1978, in the number of catalogued volumes added to the collection is a reflection of several factors, including a decline in the purchasing power of the book grant, the purchase of a number of sets of expensive research materials, and cuts in the staffing of the Library. At the same time accumulated arrears of uncatalogued material were reduced by 1,000 volumes.

Some 19,107 serial titles were being regularly received during 1979, the lowest total since 1974 and a net reduction of 740 compared with the total for 1978. Action taken in 1979 to cancel subscriptions to the value of \$30,000, while necessary in order to find savings to buy books, will have repercussions in 1980 and later years; the breaking of sets of periodicals, many of them unique in South Australia, is likely to be a serious matter for the University and other institutions.

Accessions would have been fewer but for a 'literary equipment' grant of \$125,000 for the purchase of back runs of periodicals, multi-volume reference works and collections. The Library again received a number of valuable gifts and bequests. It drew heavily on its endowed funds and on grants from the G. M. Badger Research Fund. The most notable acquisition during the year was bought from special funds. It was Galileo's *Discorsi e dimostrazioni matematiche* (1638), taken into the collection as the Library's millionth volume

Expenditure on salaries, books, serials, binding, computing services and other library requirements from all sources, amounted to \$3,297,858.

The Medical Library carried out 116 MEDLINE searches for research workers of the University and other institutions, compared with 70 in 1978. The Barr Smith Library increased its use of the Lockheed DIALOG data base, particularly from April when the MIDAS international telecommunication system became available, and completed 65 on-line searches, compared with 24 in 1978.

Throughout the year the Library suffered from staff shortages, with at least eight positions continuously held vacant from financial necessity. Without the CIRCON computerised loan system, developed by the Library and successfully introduced late in 1978, it is probable that the staff shortage would have caused the circulation service to break down. With the assistance of a special supplementary grant at mid-year the Library was able to maintain its traditional hours of service. To draw attention more effectively to available resources and services the Library made maximum use of its exhibition facilities, and, coincident with the aquisition of the millionth volume, introduced *University of Adelaide Library News*, a small bulletin to be published each term.

At the end of the year, using special funds, the Library bought a new computer to enable it to develop a bibliographic system which would encompass conversion of catalogue and other records to machine-readable form, early involvement in a national bibliographic network, and eventually an on-line catalogue.

In April, the Education Committee appointed a Select Committee on the Future Development of the Barr Smith Library, which submitted a detailed report later in the year. This report, taking into account the lack of provision for library building extensions within the foreseeable future, made recommendations with the following aims: increasing the number of seats for readers; economising in the use of space through added emphasis on the collection of publications in microform; provision of an improved microform service in the Library; transfer of less-used volumes to remote storage; provision of staff and development of procedures to ensure maintenance of up-to-date records of stored material, and prompt retrieval of items needed by readers; reallocation of some space in the Library Complex from other use to necessary use by the Library; continued accommodation of the Medical Library in the Barr Smith Library building for the time being; co-operation with Flinders University in building and operating a joint library store on the Flinders campus. At the end of the year active planning was in progress in accordance with the recommendations of the Committee.

#### 10. Grounds, Buildings and Accommodation

The new Medical Sciences Building was completed in mid-year; the original plans had had to be slightly modified during the course of construction, following the Universities Council's change in policy in regard to cost supplementation of capital projects. The new building is a very modern laboratory building, made of reinforced concrete with pre-cast concrete cladding. The air-conditioning is supplied by a Steam Absorption Chiller (a unique installation especially imported from America) which has spare capacity to provide air-conditioning for four floors of the old Medical School if required in the future. As part of its energy management program, the University has arranged to purchase steam from the Royal Adelaide Hospital and use this steam to generate chilled water for air-conditioning purposes. This unusual approach will greatly reduce the future consumption of high-cost electricity, thereby restraining future energy costs for the University. The sharing with the Royal Adelaide Hospital will also improve the efficiency of steam generation at the hospital and hence reduce Royal Adelaide Hospital costs.

The building was opened on 12 October 1979 by his Excellency, the Governor-General, Sir Zelman Cowen. At the same time, Sir Zelman named the new Florey Lecture Theatre, and unveiled a bust of Lord Florey which sits outside the lecture theatre. Howard Walter Florey was one of the University of Adelaide Medical School's most distinguished graduates. He was awarded a Nobel Prize for his pre-eminent part in the recognition of the potential and subsequent development of penicillin, the use of which was to prove of inestimable value in the treatment of certain classes of human illness.

Three inaugural lectures were held as part of the commemorative program associated with the opening of the building. The first Inaugural Florey Lecture was held on 1 October and was given by Professor Paul Korner, Director of the Baker Institute in Melbourne. Professor Korner spoke on "The Prevention of Heart Disease". The second Inaugural Florey Lecture was given on 10 October by Professor John Cairns, of the Imperial Cancer Research Fund in London. Professor Cairns, a molecular biologist, and author of the book Cancer: Science and Society spoke on "Cancer and Society". The Florey lectures are to be held annually in the Faculty of Medicine.

The third lecture given to mark the opening of the new building was the Inaugural Abbie Memorial Lecture on 12 October. The speaker was Professor Philip V. Tobias, Professor of Anatomy and Honorary Professor of Paleo-anthropology at the University of Witwatersrand Medical School, Johannesburg, South Africa. Professor Tobias spoke on "The evolution of the human brain, intellect and spirit". The Abbie Memorial Lecture Series is in commemoration of the life and work of the late Emeritus Professor of Anatomy and Histology at the University of Adelaide, Andrew Arthur Abbie, and has been established with a generous endowment by Mrs. Audrey Abbie, widow of Professor Abbie.

No other major buildings are being financed during the current triennium. Because of this, pressure on accommodation elsewhere in the University can be relieved only by making use of some of the spare space released in the old Medical School, although its location is far from satisfactory for this purpose. A plan for using this space has been worked out, but can only be financed by using the already inadequate annual allocations for minor works, and it will therefore take several years to complete. The first stage of the plan was put into effect by moving the Department of Oral Biology and the Road Accident Research Unit to the old building.

With the co-operation of the Physics Department and the Mawson Institute, arrangements were made to reallocate some of the unused space in the Oliphant Wing of the Physics Building to the Centre for Asian Studies, which had been without adequate accommodation since its foundation in 1974. The rooms vacated by the Centre in the Horace Lamb Building were taken over by the Department of Computing Science, which had also been in need of more space.

On 30 July, His Excellency the Governor, Mr. Keith Seaman, unveiled a plaque on the south-west corner of the Mitchell Building, the first University building to be constructed, to commemorate the 100th anniversary of the laying of the foundation stone. At the same time, an historical exhibition of documents and photographs connected with the early years of the University was staged in the Basten Room and opened to the public for three weeks.

Another centenary celebrated during 1979 was that of the construction of Martindale Hall, a magnificent Georgian mansion situated 130 kilometres north of Adelaide, which

became the property of the University in 1965 as a result of a bequest from the estate of the late Mr. J. A. T. Mortlock. During the past few years the University has carried out considerable restoration work on the building and in 1978 extensive furbishing of the interior of the Hall was completed. Martindale Hall was originally built by Mr. Edward Bowman in 1879, and to mark the centenary, the University promoted various events, including a Centenary Ball on 20 October, followed by an Australian Colonial Fair on 21 October, in collaboration with the Craft Association of South Australia. The proceeds from the centenary functions will be used for further restoration work on the Hall.

The University's Energy Conservation Program, referred to in last year's report, continues to be successful. In addition to achieving substantial savings in the cost of gas, water, electricity and fuel oil, and of lift maintenance, the University has entered into discussions with the State Government authorities which use major buildings adjoining the University, with a view to co-operating with them in the overall use of energy and

effecting economies by, for example, using inter-connecting energy plants.

The Council, on the recommendation of the Engineering Services Management Group, has decided that a major plant maintenance program, with an emphasis on preventative maintenance, should be adopted. It is anticipated that worthwhile cost benefits will result in that, while the immediate annual maintenance costs will increase, the long term capital costs will be much reduced because of the extra life of the plant. The first stage of the program will provide a preventative maintenance program for the new Medical Sciences Building, the replacement of a number of major plant items that have reached the end of their useful life, and the development of a computer system to control plant maintenance.

During the year the Council reviewed its policy in regard to the large number of housing properties in North Adelaide which it has acquired over a long period, and decided to retain them against future expansion needs, and in the meantime to continue to allow them to be used for accommodating students under its Non-Collegiate Housing Scheme.

#### 11. FINANCIAL MATTERS

As a result of the Government's decision, announced last year, to restore triennial funding, at least as far as recurrent grants are concerned, the University was made aware of its main allocations of funds for each year of the triennium 1979-81. Unfortunately, although recurrent funds have been maintained at the same level in real terms for the University sector as a whole, the allocations to the University of Adelaide show a steady decline over the three year period. The 1979 allocation was less in real terms than the 1978 allocation by \$340,000, and there are to be further reductions in 1980 and 1981 of \$215,000 and \$130,000 respectively. At the same time, as a result of the lack of indexation of non-salary expenditure, combined with the effects of 'incremental creep' and other unavoidable increases in costs, the University is faced with additional expenditure of some \$450,000 in each successive year of the triennium.

The University's allocations for minor works and equipment have also been reduced, but in these cases the actual figures are not announced on a triennial basis and are known

only one year in advance.

The reduced budget allocations have had a drastic effect on the staffing situation. Taking into account the effects of 'incremental creep' which are more serious when times are hard, and mobility of staff is therefore less, the Departmental Staffing Committee will be about 10 per cent worse off in real terms in 1980 than in 1976. The consequences of such a severe reduction is that, as noted in section 3(7) above, all academic posts falling vacant by retirement or resignation in 1980 and 1981 will have to be 'frozen'.

The reduced allocations in recurrent expenditure, combined with the fact that the cost of books and periodicals rises at a rate considerably above the Consumer Price Index, have also had a significant effect on library resources. Unless the allocation for the Library is significantly increased (at the expense of some other section of the University), it will be difficult to maintain the desired rate of accession of new and significant works for the Library. In 1979 a 5 per cent reduction in the number of periodicals purchased by the Library had to be made in order to provide more money to buy books.

Similarly, the money available for the purchase of consumable materials is estimated to be 20 per cent lower than a satisfactory standard for effective research. This is a most frustrating situation for staff and postgraduates who find their research projects seriously limited. The winning of research support from bodies such as the A.R.G.C. does not solve

the problem since such bodies assume that universities will provide basic maintenance and facilities.

The situation in regard to expenditure on buildings is even more difficult. Capital grants for new buildings are non-existent, and those for the maintenance and adaptation of old ones are now totally inadequate, the sum made available in 1979 being just under \$300,000 for a campus with buildings that would cost in excess of \$120 million to replace. The campus is ageing, and as it does the cost of maintaining it becomes greater: meeting this cost puts more pressure on the resources available for the primary purposes of the University, namely teaching and research.

During 1979 the University took advantage of the liberalisation of the 1978 States Grants (Tertiary Education Assistance) Act—the legislation under which Tertiary Institutions receive Government funding—to allow moneys to be transferred from 1979 to 1980. This is particularly desirable in the case of staffing committees where the precise outcome in any year cannot be completely controlled as the incidence of death, resignation, recruitment (both acceptance and arrival) are haphazard. Universities tend to be conservative in their approach to financial matters, and when there is a threat of even tougher times ahead decision makers are prepared to squeeze rather harder today to alleviate worse future fears. As a result, the official accounts of the University for 1979 show that it was possible for nearly \$500,000 of moneys available for academic purposes to be carried forward to 1980 in addition to the writing off of the deficit brought forward from previous years. Thus, in purely financial terms, the University has no deficit, and it also has a very positive cash situation.

The accounts for 1979 are the first in the University's history to have been produced using modern computing methods. It is intended that the accounting service now provided will enable the main activities of the University to evolve efficiently and at the

same time be as economical as possible.

The Council has decided to set up 'The University of Adelaide Foundation', the main object of which is to ensure that the University's private funds will be directed towards specific ends, instead of being subsumed in the overall budget. The Foundation will finance activities and facilities which are not entitled to support from recurrent government grants, and will thereby support, promote and enrich the general intellectual and cultural life of the University.

# 12. STATISTICS

I. Staff Equivalent full-time staff numbers as at 30 April 1979 are shown in the following

All Full-Time Staff (Filled Positions as at 30 April, 1979)

	Males	Females	TOTAL		
Academic Activities (i) Teaching and Research: Academic Non-Academic supporting	574.25	79.5	653.75		
Academic Activities: Technical Administrative (ii) Research Only (Funded by U.R.G. or Outside Grants):	221.5 4.0	108.9 125.0	330.4 129.0		
Academic	52.5	5.3	57.8		
Non-Academic supporting Academic Activities	76.8	87.8	164.6		
Sub-Total—Academic Activities	929.05	406.5	1335.55		
Academic Services Figures in parenthesis are professional staff and are included in the main figures					
Library Computing Centre Other*	42 (12) 17 (11) 79 (11)	97.83 (29) 13 (2) 17.6 (-)	139.83 (41) 30 (13) 96.6 (11)		
Sub-Total—Academic Services	138 (34)	128.43 (31)	266.43 (65)		
Student Services** Professional Other	8 4	3 6	11 10		
Sub-Total—Student Services	12	9	21		

\*Includes Waite Institute Admin., Medical School Office, Advisory Centre for University Education, Animal Houses, and Instrument Workshops.

\*\*University Health Service, Centre for Physical Health, Student Counselling, and Careers Advisory Services.

All Full-Time Staff (Filled Positions as at 30 April, 1979) (Continued)

	Males	Females	TOTAL		
General University Services (i) Central Administration: Professional Clerical, Typing, etc. (ii) Buildings and Grounds: Professional Tradesmen Caretakers, cleaners, maintenance, etc.	43 27 3 25 35	7.5 94 — 6	50.5 121 3 25 41		
Sub-Total—General University Services	133	107.5	240.5		
Public Services* Academic/Professional Other	14 1	1 10.7	15 11.7		
Sub-Total—Public Services	15	11.7	26.7		
Total Staff (Financed from University Funds or Outside Grants)	1227.05	663.13	1890.18		

<sup>\*</sup>Includes Adult Education, Radio Station and Anti-Cancer Foundation.

## II. Students

- N.B. 1. All statistics in this Section have been prepared as at 30 April 1979 (the official date for the submission of statistics to the Universities Commission).
  - 2. All figures in this Section refer to persons, and not to 'weighted student units'.

## Number of Students:

The total number of students was 9,096 (including 202 single-studies students at the Elder Conservatorium of Music), which is 80 less than the enrolment in 1978. The composition of the student body is shown in the following table:

	Males	Females	Total	Percentage of total enrolment
Full-time Part-time External Staff Elder Conservatorium	3,864 1,596 125 81 88	2,091 1,071 33 33 114	5,955 2,667 158 114 202	65.5 29.3 1.7 1.3 2.2
Total Students	5,754	3,342	9,096	100.0

# Distribution into Courses:

Each student is counted once only—in the category appropriate to his principal course. The figures in brackets refer to the number of females included in the totals.

# A. Higher Degree Candidates:

	Higher Doctor				Ph.D.			Master				Total					
	F/T	P/T	Staff	Ext.	F/T	P/T	Staff	Ext.	F/T	P/T	Staff	Ext.	F/T	P/T	Staff	Ext.	Total
Agricultural Science	_		·	_	44(7)	9(1)	2(-)	2(-)	13(4)	4(1)	1(-)	17(1)	57(11)	13(2)	3(-)	19(1)	92(14)
Architecture	_		_	_	2(-)	_	1(-)	_	5(-)	1(-)		_	7(-)	1(-)	1(-)		9(-)
Urban and Regional					` '		``			` ′	i			"			- ( )
Planning		_	_	_	_		_	_	_	32(9)		_	_	32(9)		_	32(9)
Arts		_		_	50(20)	24(7)	20(14)	8(3)	51(27)	47(26)	7(4)	7(-)	101(47)	71(33)	27(18)	15(3)	214(101)
Education	_	_	_		_	_		_	11(4)	71(29)	4(3)	4(2)	11(4)	71(29)	4(3)	4(2)	90(38)
Dentistry		_	_		2(-)		1(-)	_	5(-)	2(-)	2(1)	_	7(-)	2(-)	3(1)		12(1)
Economics	_	_	. —		5(2)	·	3(-)	2(-)	7(2)	7(1)	3(1)	2(-)	12(4)	7(1)	6(1)	4(-)	29(6)
Business Management	_	_	_	_	_	_	_	_	10(2)	87(4)	3(1)	5(1)	10(2)	87(4)	3(1)	5(1)	105(8)
Engineering		_	_	1(-)	22(-)	1(-)	3(-)	3(-)	8(-)	47(-)		6(-)	30(-)	48(-)	3(-)	10(-)	91(-)
Applied Science		_		_	_		-	_	3(-)	2(-)		1(-)	3(-)	2(-)	_	1(-)	6(-)
Law	_	_	_	1(-)	_		1(-)	_	1(1)	4(1)	1(-)	1(-)	1(1)	4(1)	2(-)	2(-)	9(2)
Medicine	5(-)	4(-)	13(2)	21(3)	7(1)	2(1)	6(1)	1(-)		`	1(-)	1(-)	12(1)	6(1)	20(3)	23(3)	61(8)
Music		_			4(2)	3(1)	`_	_	16(10)	10(2)	4(1)	1(-)	20(12)	13(3)	4(1)	1(-)	38(16)
Science	_	_		3(-)	147(24)	7(-)	13(1)	10(1)	26(6)	20(2)	3(1)	22(2)	173(30)	27(2)	16(2)	35(3)	251(37)
Mathematical Sciences			_	1(-)	28(5)	1(1)	12(1)	1(-)	9(1)	3(-)	1(-)	2(1)	37(6)	4(1)	13(1)	4(1)	58(9)
Environmental Studies	_	_	-	_	_	_	_	_	29(8)	12(-)	-		29(8)	12(-)	-	_	41(8)
Total	5(–)	4(-)	13(2)	27(3)	311(61)	47(11)	62(17)	27(4)	194(65)	349(75)	30(12)	69(7)	510(126)	400(86)	105(31)	123(14)	1,138(257)

# B. Candidates for Bachelor Degrees:

	Honours (a)			Ordinary			Total			
	F/T	P/T	Ext.	F/T	P/T	Ext.	F/T	P/T	Ext.	Total
Agricultural Science Architecture	2(2) 14(3) 107(54) 5(-) 11(3) 57(-) 17(7) 28(5) 1(1) - 17(11) 82(23)	1(1) 	1(1) 	163(51) 160(26) 1,073(666) 258(53) 368(83) 480(21) 562(212) 315(83) 708(235) 137(84) 710(267)	35(17) 14(3) 675(394) 26(8) 322(47) 62(2) 73(31) 83(17) — 15(5) 14(7) 185(65)	13(6) 1(-) - - - - 1(-)	165(53) 174(29) 1,180(720) 263(53) 379(86) 537(21) 579(219) 343(88) 1(1) 708(235) 154(95) 792(290)	35(17) 14(3) 676(395) 26(8) 322(47) 62(2) 77(32) 83(17) — 15(5) 18(9) 185(65)	14(7) 1(-) 	200(70) 188(32) 1,870(1122) 289(61) 702(133) 599(23) 656(251) 426(105) 1(1) 723(240) 172(104) 978(355)
Total	341(109)	9(4)	1(1)	4,934(1,781)	1,504(596)	15(6)	5,275(1,890)	1,513(600)	16(7)	6,804(2,497

<sup>(</sup>a) Final Year honours only.

### C. Candidates for Postgraduate Diplomas and Certificates:

	Full-time	Part-time	External	Total
Education (Dip.Ed.) Education (Adv.Dip.Ed.) Computing Science Applied Psychology Clinical Science Library Studies Psychotherapy	135(71) 16(2) 3(1) —	121(61) 13(7) 31(8) 31(21) 4(3) 8(1)	5(2) ————————————————————————————————————	261(134) 13(7) 47(10) 34(22) - 5(4) 8(1)
Total	154(74)	208(101)	6(3)	368(178)

#### D. Students taking Miscellaneous Subjects:

	Full-time	Part-time	External	Total
Masters' Qualifying		2(1) 72(35) 3(2) 102(16) 	1(1)     12(8)	2(1) 77(36) 4(2) 108(16) — 2(1) 12(2) 21(8) 202(114) 152(115) 206(115)
Total	16(1)	757(400)	13(9)	786(410)

<sup>(</sup>a) Students taking university subjects as part of a degree or diploma course of the S.A. Institute of Technology.

<sup>(</sup>b) Students admitted under the provisions of clause 13 of Chapter XXV of the Statutes.

Comparison with preceding years:

The following figures of total enrolments in the various faculties and courses are provided to show changes in University enrolments over the last five years:

Course (a)	1975	1976	1977	1978	1979
Undergraduate, diploma, and miscellaneous students: Agricultural Science	217 3 179 2,904 292 709	224 — 176 2,887 313 752	199 — 188 2,692 309 770	208 — 189 2,415 287 761	204 — 188 2,260 289 810
Engineering Law Mathematical Sciences Medicine Music Science Technology Miscellaneous (SAIT) (c) Elder Conservatorium (d)	620 610 326 745 170 1,255 14 115 224	617 609 414 810 166 1,109 2 123 210	621 639 418 781 138 1,082 — 141 210	616 642 457 741 148 1,004 — 160 192	599 658 485 732 172 999 — 152 202
Visiting Students (e)	73 8,456 1,170	150 8,562 1,243	8,337 1,218	192 8,012 1,164	7,956 1,140
Total	9,626	9,805	9,555	9,176	9,096

- (a) Each student is counted once only, in the category appropriate to his principal course.
- (b) Included Masters' qualifying candidates.
- (c) Students enrolled in subjects as part of a degree or diploma course of the S.A. Institute of Technology.
- (d) Students not also enrolled for degree or diploma subjects.
- (e) Students admitted under the provisions of clause 13 of Chapter XXV of the Statutes.

It will be seen that since 1976, when the number of students at the University was at its maximum, the student population has been steadily decreasing. A more detailed study of the figures indicates that this decline is not due to a reduction in the number of students new to the University; the quota for new admissions has been filled every year, with the exception of a small shortfall in the Faculty of Agricultural Science. The reduction is primarily due to an increase in the number of students who fail to re-enrol after completing their first year. For instance, in 1979 26% of all students who commenced a bachelor's degree course in 1978 failed to re-enrol. Studies are continuing with a view to ascertaining the reasons for this phenomenon. It is interesting to note that the number of failures to re-enrol was very small in the Faculties of Medicine and Dentistry.

#### Overseas Students:

There were an estimated 335 overseas students enrolled at the University. As in previous years the largest numbers came from the countries of South-East Asia, particularly from Malaysia, Singapore, India, Hong Kong and Indonesia. Most of the overseas students were enrolled in the Faculties of Agricultural Science, Economics, and Engineering.

#### 13. Admission to Degrees

Degrees were conferred and diplomas granted at four Commemoration Ceremonies during the year. Two Ceremonies were held on 2 May 1979 (at 11 a.m. and 3 p.m.), the Speakers at which were, respectively, His Excellency the Governor of South Australia (Mr. Keith Seaman), and Mr. G. Gordon, President of the Adelaide University Postgraduate Students' Association 1978. Two further Ceremonies were held on 9 May (at 11 a.m. and 3 p.m.), the Speakers at which were, respectively, Deputy Chancellor Dr. E. H.

Medlin, and Dr. B. R. Elliott, on whom the degree of Doctor of the University was conferred. In addition, degrees were conferred and diplomas granted at two of the regular Council meetings held during the year, on 13 July and 19 December 1979 respectively.

In all, 180 (31) candidates were admitted to higher degrees by examination or thesis; 1,503 (532) bachelor degrees were conferred by examination; and 241 (113) diplomas were awarded.

A summary by faculty of degrees conferred and diplomas granted during 1979 is as follows:

	Higher Doctorate	Ph.D.	Master	Bach. (Hons.)	Bach. (Ord.)	Postgrad. Diplomas
Agricultural Science Architecture Arts Dentistry Economics Engineering Law Mathematical Scs. Medicine Music Science Environmental St.	5(1) 2(0)	13(4)	5(0) 28(5) 11(4) 7(0) 8(1) 7(0) — 2(0) — 1(1) 9(3) 16(2)	6(3) 4(0) 81(43) 4(0) 10(2) 61(3) 14(6) 30(8) 2(1) 12(8) 73(20)	27(6) 23(4) 383(220) 45(7) 127(25) 56(2) 113(36) 101(25) 112(26) 33(24) 186(63)	221(109) — — — 12(1) 8(3) —
Total	7(1)	79(14)	94(16)	297(94)	1,206(438)	241(113)

In addition 4 (0) Doctorates of the University were conferred.

(The figures in brackets refer to the number of females included in the total).

#### 14. University Health Service

#### (1) General

It was anticipated that the alterations to the National Health Scheme, whereby uninsured patients would have to pay the full fee to their family doctor, would increase the work load of the Health Service. This forecast was correct. The Service has been very busy during 1979 and working to full capacity. Even though there have been two doctors in attendance for 10 sessions a week, it has been very difficult to manage both the preventive aspect of the work by medical examination and the treatment of illnesses.

In addition to the two full-time medical officers (Dr. R. C. Heddle and Dr. C. O. Auricht), there have been two part-time doctors in attendance during the year—Dr. Jeanette Linn and Dr. Thea Limmer. This has given those students wishing to see a female medical officer the opportunity to do so. Dr. Linn's post has been funded by a generous allowance of \$3,000 from the University Union, but in 1980 this is to be discontinued. Under the new arrangements for Superannuation, the University has allocated \$3,000 per year for medical examinations, and Dr. Linn's post will be funded from this grant. Dr. Limmer's post has been funded from the Workmen's Compensation fund and this has enabled the Service to give prompt attention to those members of staff who come under the Workmen's Compensation Act.

It is pleasing to report that the Safety Committee's efforts have resulted in fewer accidents to ancillary staff. This is especially noticeable in the area of eye safety, but on several occasions eye injuries have occurred when appropriate safety glasses should have been worn but were not worn. However, the number of accidents in laboratories has risen—Science 161 in 1978 to 185 in 1979, and Engineering 38 in 1978 to 51 in 1979. Also, there has been an increase in the number of accidents to academic staff. At least 20% of the Workmen's Compensation accidents occurred on the way to or from work as vehicle accidents or tripping in gutters or on kerbs.

Two St. Johns First Aid classes were conducted by Dr. C. O. Auricht and Mr. R. Charlton in 1979.

Close co-operation has continued between the Mark Mitchell Centre for Physical Health and the Health Service in the preventive area of medicine. In particular, students

have co-operated well. Many students report to the Centre, who neither play a sport nor take part in any other activity. It is found that such students are prone to emotional illness in times of stress and have been resorting to using drugs of some kind. Generally, these students have been persuaded to undertake fitness classes or weight lifting.

There have been fewer students applying for supplementary examinations. In 1977, 40% of students seeking supplementary examinations on medical grounds had emotional illnesses, but this year this was reduced to 5% and most of the students had a physical illness. The stress-related illness, glandular fever, has been present at times of pre-examination and examination in all three terms, but this was reduced in November 1979, when compared with other years.

After taking into account the fact that no cases of pulmonary tuberculosis had been seen on the campus for 10 years, the Council accepted a recommendation of the Director that chest X-ray examinations of first year students be no longer mandatory. The Mantoux test will show any students who may have been recently exposed to or be suffering from pulmonary tuberculosis.

#### (2) Statistics

The total number of individual services rendered during the year was 14,811, including 1,936 routine medical examinations of students and staff, 5,951 casualties, 3,870 return visits from casualty service, 516 poliomyelitis immunisations, 392 tetanus injections, 1,600 Mantoux tests, and 546 other immunisations. Of the 5,951 casualties, 4,998 were illness, 849 accidents, and 104 sports injuries.

#### 15. STUDENT COUNSELLING SERVICE

The largest component of the service offered to students continues to be support and assistance at an individual level in wrestling with problems of a personal, educational or vocational nature. Recorded individual counselling sessions, typically of an hour's duration on each occasion, were conducted with 751 students of all faculties and years, both undergraduate and postgraduate. Group activities were conducted at a somewhat reduced level, due principally to the more anxious absorption of students generally in academic concerns which deflected them from wider aspects of personal growth and competence.

This development is to be deplored, for in the tightening employment situation which has emerged, the success of graduates in securing employment often rests heavily on the very qualities and competences that socialisation, communication and personal development groups are designed to enhance.

The accelerating breakdown of the visible nexus between academic achievement in most courses and employment has had subtle but pervasive and serious effects on students throughout their courses, but most noticeably prior to their first enrolment. Threatened by vocational uncertainty students seem increasingly to be distorting their preferences in their initial application toward what appear to be vocationally safer courses in which, as a consequence, they have a lesser prospect of admission.

Within the University the scope of counselling activities has been extended in a number of directions. In response to a request from the Waite Institute a part-time service has been established within its campus. The Counselling Service has undertaken the establishment and administration of a program of assistance to students in English Expression, under the provisions of a General Development Grant. The Officer-in-Charge has acted as Chairman of the Information Days Committee, the scope of which has been enlarged to include a program of pre-enrolment talks on courses and subjects for those courses which allow some degree of choice of subjects.

At the level of individual counselling the service continues a strong commitment to psychotherapy for more disturbed students as well as to counselling in problems of choice and decision. The hoped-for outcome of the appointment of a female counsellor in making the service more acceptable to women students and more responsive to their needs has been evidenced in increased contact, especially with mature-age women.

Counsellors continue to be involved almost on a day by day basis with student activities, organisations and personnel, and while it it anticipated that a further change of accommodation is inevitable, there is general recognition that this close relationship should be reflected in the continued location of the Counselling Service within the Union area.

Liaison with course advisers and tutors has been maintained, the latter through a series of meetings organised by the Service. In the future it appears that liaison with these groups of staff, as well as with other services, will be undertaken more under the aegis of the Student Services Committee.

#### 16. DEPARTMENT OF CONTINUING EDUCATION

The following is a summary of the activities of the Department during the year.

Seminars on issues of moment varied in length from four hours on a single evening to 20/30 hours over two or three days. 280 students and teachers attended an evening seminar on Matriculation English; 152 attended a one-day seminar on Unemployment; while 134 attended a two-day seminar on the Year of the Child—International Responsibilities. In all about 1,000 students attended 9 seminars while 6 schools, some residential, offered educational opportunities for 288 students. The Summer School of Music presented four concerts, attracting a total audience of 1,350.

Courses for the General Public in Languages, the Natural and Social Sciences and Humanities attracted an enrolment of 1,210, while 90 students enrolled in nine discussion groups which talked things over in private homes with the aid of packages of notes, tapes and books.

Courses for professional/occupational groups attracted an enrolment of 444 in face-to-face meetings, while over 330 enrolled in radio courses—800 in all.

Radio 5UV developed in 1979 as a unique part of the University. On the one hand its administration and policies were locked into the University structure as an integral part of the Department of Continuing Education with cross-fertilisation between class and seminar and radio activities again most evident. On the other hand, 5UV thrived as a lively public radio with 70 or 80 people working in it during most weeks of the year.

Weekly programming hours crept upwards to 120 hours compared with 90 hours in 1977 and 103 in 1978. The main expansion came through an extension of five music programs into weekday mornings, and of Student Radio to 1.00 a.m. A new course Mass Media and Society was produced during the year, while Darwin and Evolution, Society Through the Writer's Eye and Along the Heysen Trail were recorded for broadcast in 1980. Publications are planned to accompany the Darwin and Heysen programs.

Specialist Literature Music Programs were made with assistance from the Australia Council and the Arts Grants Advisory Committee of South Australia. The Schools Commission also provided funds for several teacher education series. Listeners' surveys conducted by Mr. Conlon and Dr. Mullins as well as a commercial survey conducted in November showed that over 7% of adults aged 18 and over had listened to 5UV 'in the last week'. This represents a weekly audience of about 45,000 adults.

Publications—Seven new publications were issued during the year. Studies in Continuing Education was expanded to two issues; Martindale Hall by Elizabeth Warburton has been expanded from a talk given at a Departmental seminar on the History of the Mid-North; Focus on Our Southern Heritage, a collection of authoritative studies on the landscape of South Australia, the effects of human impact on the problems of their management in the 1980s. This book stemmed from last year's national conference of the same name; Big Brother or Democracy edited by Pat Flanagan of the Department of Politics is based substantially on a series of 5UV talks and interviews on the implications of the 1979 ASIO legislation.

#### 17. CAREERS ADVISORY BOARD

1979 was an uneven year for graduate employment, a strong demand being experienced in areas such as Accountancy and some branches of Engineering, but considerable difficulty being encountered by generalists. One of the main factors contributing to the problems facing generalists was the reduction in the opportunities for teachers, but the problem was compounded during the year by a substantial increase in the general rate of unemployment in South Australia. From February 1978 to February 1979 the percentage of unemployed in South Australia grew from 6.66 to 8.21 of the work force.

The Annual Survey of the first destination of graduates showed that 10.2% of those responding to the questionnaire were unemployed or casually employed as at 30 April 1979, with 71 (15.7%) Arts graduates, 49(12.5%) Science graduates, 10 (8.7%) Engineering graduates and 27 (22.1%) of the full-time Diplomates in Education unemployed or

casually employed and seeking full-time employment. The corresponding figures in 1978 were 8·1% unemployed or casually employed, including 48 (10·8%) Arts graduates, 28 (8·1%) Science graduates, 14 (13·3%) Engineering graduates and 26 (20·3%) full-time Diplomates in Education. The total number of degrees and diplomas awarded was 1,933 and the overall survey response rate was 98%.

For the first time a follow-up survey of the graduates who were unemployed at 30 April was carried out to see whether they had found employment by 1 September. This showed that the unemployment rate had fallen to 5.8% with 48 (10.6%) Arts graduates, 28 (7.1%) Science graduates, 1 (0.9%) Engineering graduate and 17 (13.9%) of the full-time Diplomates in Education unemployed or casually employed and seeking full-time employment.

Follow-up surveys were also carried out of the 1977 M.B., B.S. graduates who completed their internship and of the LL.B. graduates who completed articles or law training in 1979 and it was found that no real difficulty in finding employment had been encountered by these graduates. It will however be necessary carefully to monitor the situation for M.B., B.S. graduates when the numbers are increased by the first graduates from the Flinders Medical School.

#### 18. STUDENT WELFARE SERVICES

The University Student Loan Fund is designed to provide financial assistance to needy students who might otherwise be unable successfully to continue with their academic work. During 1979 there were 96 (90) applications for assistance from the Fund in response to which \$33,690 (\$30,840) was made available in repayable loans and \$140 (\$150) in non-repayable grants. In addition, a Short-term Loan Fund assisted 206 (69) students for whom repayable loans totalling \$9,870 (\$3,700) were approved. (The figures in brackets are for 1978). Almost all students to whom loans have been given have proved diligent in repaying them, but a few loans have had to be written off as irrecoverable.

#### 19. MISCELLANEOUS

- (1) The year was a particularly good one for student achievements in the academic field. Students of Adelaide University had great success in obtaining scholarships in open competition with students of other Australian Universities. Among these successes were the following:
  - (a) Only two Shell Postgraduate Scholarships are available each year for Australiawide competition, one in Arts and one in Science. Both were awarded to Adelaide students, A. P. Roper (Philosophy) and J. J. Potter (Organic Chemistry).
  - (b) A Senior Hulme (Overseas) Scholarship at Brasenose College, Oxford, available to applicants from Australia and New Zealand, was awarded to A. J. Branford (Applied Mathematics).
  - (c) Five Harkness Fellowships are available each year to applicants from Australia and New Zealand. One of these was awarded to Ms. S. M. A. Tancibudek (Music).
  - (d) Under the Commonwealth Scholarship and Fellowship Plan, two of the 16 U.K. awards available to Australian graduates were made to P. A. Phillips (Medicine) and A. J. Branford (Applied Mathematics), and one of the 8 Canadian awards was made to Ms. K. J. Anderson (Geography).
  - (e) The Rhodes Scholarship for South Australia was awarded to Ms. J. A. Coles (History).
  - (f) The Caltex Woman Graduate of the Year Scholarship for South Australia was awarded to Ms. M. J. Walker (Agricultural Science).
  - (g) Of nine 1851 Exhibition Science Research Scholarships available throughout the British Commonwealth, one was awarded to M. Yudkin (Computing Science).
  - In addition to the above, it is worth recording that Ms. S. Sharpe became the first student under the University's Special Entry Scheme to complete an honours degree, which she obtained with First Class Honours in Anthropology. The Special Entry Scheme was introduced four years ago to provide tertiary education possibilities for mature persons who had not completed the secondary education normally required.
- (2) An interesting event took place early in the year, when the University was visited by the Chinese First Vice-Minister of Education and a delegation of six members from the Chinese Academy of Social Sciences. Discussions took place on possible exchange

- schemes involving staff and postgraduate and undergraduate students in all disciplines, and it was intimated that individual scholars would be welcomed in Chinese Universities.
- (3) Following discussions with Flinders University, intended to associate that University and its new Medical School more closely with the Anti-Cancer Foundation of the University of Adelaide, the Council agreed to a change in the Constitution of the Foundation. It will now be called the Anti-Cancer Foundation of the Universities of South Australia, and Flinders University will be represented on the Governing Body and the various committees of the Foundation in the same way as Adelaide University. Formal legal authority in respect of the Foundation will still, however, rest with the University of Adelaide.
- (4) Considerable progress has been achieved over the last year or so in the computerisation of the University's administrative processes, especially in the Bursar's Office where, since the beginning of 1979, all payments (salaries, wages and accounts) are now processed on the University's central computer. Although the Administration has made extensive use of the computer for several years, there has been pressure to extend computerisation of the Administration at an even faster rate, but this process has been hampered by lack of availability of staff in the various offices to attend to the detailed requirements and implications of computer processes, and also by a potential shortage of time on the computer itself. As a result of the latter, thought is being given to the possibility and desirability of purchasing a computer solely for administrative use. The possibility of introducing on-line systems and key-to-disc data entry is also being considered.
- (5) In the field of office equipment, there has been considerable interest in the use of word processors, and a number of departments, including the central administration, have acquired these machines. They have already demonstrated their efficiency by saving time and labour in several aspects of office work, especially in the processing of committee agendas, minutes and reports. It is expected that there will be a rapid extension of these facilities, and the Equipment Committee is arranging for an assessment to be made of the effectiveness of the different models already in use in the University, in order to ensure that the most appropriate machines are acquired.

#### 20. FINANCIAL STATEMENTS

An abstract of the income and expenditure of the University during 1979 is annexed to this Report, together with a further statement showing the actual position of the University with respect to its property, funds and liabilities at the close of 1979.

Signed on behalf of the Council,

J. J. BRAY,

Adelaide, 10 October, 1980.

Chancellor

# FINANCIAL STATEMENTS FOR THE YEAR 1979

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D. R. BEECHER,

Bursar.

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Income and Expenditure Account for the

INCOME	Ξ		
North Terrace			
Schedule		1979	1978
	\$	\$	\$
Government Grant for: (1) Recurrent Expenditure	26 402 917		34,116,172
Research	36,493,817 492,567		313,56
		26006204	
Private Income:		36,986,384	34,429,739
Interest—			
Treasury of South Australia	168,720		114,443 540
Agent General	2,609 387,664		418,30
Electricity Trust of S.A	27,160		44.89
S.A. Gas Co.	8,469		11,56
Composite Fund— Dividends and Interest	381,435		249,213
Investments of Endowment and	361,433		249,213
other Funds	380,788		291,350
Student Conservatorium Fees	17,065		18,624
Other IncomeF	291,949		254,129
		1,665,859	1,403,062
TOTAL INCOME	•	38,652,243	35,832,801
Deduct:			
Credits to Special Funds		466,111	374,602
D. I.		38,186,132	35,458,199
Deduct: Appropriations towards meeting deficits of			
prior years: Adjustments to Recurrent Grants	_		3,000
Part Deficits—prior years			
(Schedule 7)	168,569		39,893
			42,893
2) Appropriations towards future  Expenditure	633,497		296,555
Repayment of A.M.P. Loan for			
Union Building	44,672		44,672
		846,738	384,120
		\$37,339,394	\$35,074,079
•			

<sup>(1)</sup> Includes General Development Grant \$274,000.

<sup>(2)</sup> For itemised appropriations see page 4.

### OF ADELAIDE:

year ended 31 December, 1979

EXPENDIT			
North Terrace			
Schedule	\$	1979 \$	1978 \$
Departmental: Salaries and Wages	23,226,435		21,905,367
New Appointments  Laboratory Maintenance A Furniture A Equipment (ex GDG)	48,082 1,302,058 21,065 143,226	•	44,398 1,394,694 23,401
Library:		24,740,866	23,367,860
Salaries and Wages  Books and Binding	1,773,257 934,232		1,658,118 891,890
Administrative Salaries:		2,707,489 2,582,736	2,550,008 2,435,940
Research:         Salaries and Wages         A           Maintenance         A           Conferences and Vis. Scholars         A           Scholars         A	61,180 478,986 132,619 374,510		39,921 381,406 177,558 357,638
Maintenance of Property:		1,047,295	956,523
Caretaking and Cleaning Building Repairs	1,202,302 526,537 113,141 147,202		1,162,099 533,751 113,156 130,205
Serve duni		1,989,182	1,939,211
Sundry: Payroll Tax Examinations General Expenses. Bengineering Services Consurance. Description Special Grants Supplementary Superannuation Supplementary Pensions Other Pensions Long Service Leave Study Leave	1,315,567 65,276 714,360 981,945 162,141 56,528 16,191 546,540 16,435 205,475 191,368		1,300,672 66,431 654,582 841,577 207,139 40,038 130,514 90,234 62,909 157,441 273,000
		4,271,826	3,824,537
		\$37,339,394	\$35,074,079

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Income and Expenditure Account for the

INCOME	3		
WAITE AGRICULTURAL RESEARCH INSTITUTE			
Schedule  Covernment Cuart for	\$	1979 \$	1978 \$
Government Grant for: (3) Recurrent Expenditure Research	4,076,183 55,433		3,936,828 68,433
Interest	27,963	4,131,616	4,005,261 32,971
Other Income	45		1,733
•	<u> </u>	28,008	34,704

\$4,159,624 \$4,039,965

<sup>(3)</sup> The amount for Government Grant is a balancing figure on this account. It is not a sum calculated by the Government and earmarked for the purposes of Waite Institute.

# OF ADELAIDE

# year ended 31 December, 1979

EXPENDIT	URE		
Waite Agricultural Research Institute			
Schedule	\$	1979 \$	1978 \$
Departmental: Salaries and Wages	2,180,480		2,111,009
New Appointments	137,042 194		4,504 148,694 1,771
Library:		2,317,716	2,265,978
Salaries and Wages	59,280 75,123		53,865 65,948
Administrative Salaries:		134,403 427,187	119,813 401,409
Research:       Salaries and Wages       A         Maintenance       A         Conferences and Vis. Scholars       A         Scholars       A	28,449 53,709 11,632 79,363		28,819 38,729 1,478 78,591
M. C.		173,153	147,617
Maintenance of Property: Caretaking and Cleaning Building Repairs Maintenance of Site and Gardeners' Wages.	116,184 83,380 38,031		119,961 83,506 45,622
		237,595	249,089
Sundry: Payroll Tax General Expenses	143,318 87,029 216,031 18,321 12,895		143,115 78,814 187,374 26,508 39,810 12,157
Other Pensions Long Service Leave	50,230		24 50,948
E		527,824	538,750
Farm: Wages Maintenance	206,208 19,100		190,072 18,027
Mortlock Experiment Station:		225,308	208,099
Salaries and Wages  Maintenance and Travel	97,338 19,100		91,210
		116,438	109,210
		\$4,159,624	\$4,039,965

THE UNIVERSITY

Combined Income and Expenditure Account—North Terrace

# INCOME

1978		1979 \$	N 41. T	1978	7D 4 1
\$		<b>J</b>	North Tce.	Waite \$	Total \$
	Government Grant for		•	i i	•
38,053,000 382,000	Recurrent Expenditure Research	40,570,000 548,000	21,905,367 44,398	2,111,009 4,504	24,016,376 48,902
	Private Income		1,394,694 23,401	148,694 1,771	1,543,388 25,172
114,443 540 418,307 44,895 11,561	Interest— Treasury of S.A. Agent General Short Term Deposits E.T.S.A. S.A. Gas Co.	168,720 2,609 387,664 27,160 8,469	1,658,118 891,890 2,435,940	53,865 65,948 401,409	1,711,983 957,838 2,837,349
249,213	Composite Fund Dividends and Interest	381,435		•	
224 221	Investments— Endowments and Other Funds	408,751	39,921 381,406 177,558	28,819 38,729 1,478	68,740 420,135 179,036
324,321	Conservatorium Fees	17,065	357,638	78,591	436,229
18,624		* 1			···
255,862	Other Income	291,994	1,162,099 533,751	119,961 83,506	1,282,060 617,257
\$39,872,766	TOTAL INCOME	\$42,811,867	113,156	45,622	158,778
374,602	Deduct— Credits to Special Funds.	466,111	130,205		130,205
\$39,498,164		\$42,345,756	1,300,672 98,663	143,115	1,443,787 98,663
	Deduct— Appropriations to deficits of prior years		622,350 841,577 207,139 40,038	78,814 187,374 26,508	701,164 1,028,951 233,647 40,038
3,000	Adjustment— Recurrent Grant	_	130,514 90,234	39,810 12,157	170,324 102,391
39,893	Deficit— prior years (Sch. 7)	168,569	62,909 157,441	12,137 24 50,948	62,933 208,389
296,555	Appropriations towards future expenditure	633,497			273,000
44,672	Repayment A.M.P. Loan for Union Building	44,672		190,072 18,027	190,072 18,027
				91,210 18,000	91,210 18,000

\$39,114,044

\$41,499,018

OF ADELAIDE

and Waite Institute for the year ended 31 December, 1979

# **EXPENDITURE**

Library   Salaries and Wages   1,773,257   59,280   1,832,537   2,841,892   2,837,349   Administrative Salaries   2,582,736   427,187   3,009,923			N	1979	T 1	
Departmental						e e
Travelling Expenses	Þ	Departmental	Φ .	Ф	J)	Φ .
New Appointments		Salaries and Wages Travelling Expenses—	23,226,435	2,180,480	25,406,915	
Furniture		New Appointments				
Library   Salaries and Wages   1,773,257   59,280   1,832,537   2,669,821   Books and Binding   934,232   75,123   1,009,355   2,841,892   2,837,349   Administrative Salaries   2,582,736   427,187   3,009,923   3,009,922   Research   Salaries and Wages   61,180   28,449   89,629   Maintenance   478,986   53,709   532,695   Conferences and Vis.   Scholars   132,619   11,632   144,251   1,104,140   Scholars   374,510   79,363   453,873   1,220,443   Maintenance of Property   Caretaking-Cleaning   1,202,302   116,184   1,318,486   Building Repairs   526,537   83,380   609,917   Maintenance of Site   and Gardeners' Wages   113,141   38,031   151,172   2,188,300   Sports Grounds   147,202   — 147,202   2,226,77   Sundry   Payroll Tax   1,315,567   143,318   1,458,885   Examinations   65,276   General Expenses   714,360   87,029   801,389   Engineering Services   981,945   216,031   1,197,976   Insurance   162,141   18,321   180,462   Special Grants   56,528   — 56,528   Supplementary   Superannuation   16,191   — 16,191   Supplementary Pensions   16,435   — 16,435   — 16,435   Cong Service Leave   205,475   50,230   255,705   4,363,287   Study Leave   191,368   — 206,208   206,208   Maintenance   — 206,208   206,208   Maintenance   — 97,338   97,338   97,338						
Salaries and Wages	25,633,838					27,058,58
2,669,821       Books and Binding       934,232       75,123       1,009,355       2,841,89.         2,837,349       Administrative Salaries       2,582,736       427,187       3,009,923       3,009,922         Research Salaries and Wages       61,180       28,449       89,629         Maintenance       478,986       53,709       532,695         Conferences and Vis. Scholars       132,619       11,632       144,251         1,104,140       Scholars       374,510       79,363       453,873       1,220,443         Maintenance of Property Caretaking-Cleaning       1,202,302       116,184       1,318,486       609,917         Maintenance of Site and Gardeners' Wages       113,141       38,031       151,172       2,226,77'         2,188,300       Sports Grounds       147,202       —       147,202       2,226,77'         Sundry Payroll Tax       1,315,567       143,318       1,458,885       65,276       65,276       65,276       65,276       65,276       65,276       66,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276       65,276		Library	1 772 257	50.200	1 022 527	
Research   Salaries and Wages	2,669,821	Books and Binding	934,232		1,009,355	2,841,892
Salaries and Wages	2,837,349	Administrative Salaries	2,582,736	427,187	3,009,923	3,009,923
Maintenance						
Conferences and Vis. Scholars		Salaries and Wages				
1,104,140 Scholars		Conferences and Vis.	,	•	,	
Maintenance of Property Caretaking-Cleaning       1,202,302       116,184       1,318,486         Building Repairs       526,537       83,380       609,917         Maintenance of Site and Gardeners' Wages       113,141       38,031       151,172         2,188,300       Sports Grounds       147,202       —       147,202       2,226,77         Sundry Payroll Tax       1,315,567       143,318       1,458,885       Examinations       65,276       —       65,276       65,276       General Expenses       714,360       87,029       801,389	1 104 140					1 220 44
Caretaking-Cleaning	1,104,140					1,220,11
Building Repairs			1 202 302	116 184	1 318 486	
and Gardeners' Wages 113,141 38,031 151,172 147,202 2,226,777  Sports Grounds 147,202 — 147,202 2,226,777  Sundry Payroll Tax 1,315,567 143,318 1,458,885 Examinations 65,276 — 65,276 General Expenses 714,360 87,029 801,389 Engineering Services 981,945 216,031 1,197,976 Insurance 162,141 18,321 180,462 Special Grants 56,528 — 56,528 Supplementary Superannuation 16,191 — 16,191 Supplementary Pensions 546,540 12,895 559,435 Other Pensions 16,435 — 16,435 Long Service Leave 205,475 50,230 255,705 4,363,287 Study Leave 191,368 — 191,368 4,799,650  Farm Wages — 206,208 206,208 4,799,650 Mortlock Salaries and Wages — 97,338 97,338		Building Repairs				
2,188,300     Sports Grounds		Maintenance of Site and Gardeners' Wages	113.141	38.031	151.172	
Payroll Tax       1,315,567       143,318       1,458,885         Examinations       65,276       —       65,276         General Expenses       714,360       87,029       801,389         Engineering Services       981,945       216,031       1,197,976         Insurance       162,141       18,321       180,462         Special Grants       56,528       —       56,528         Supplementary       Supplementary       —       16,191         Supplementary Pensions       546,540       12,895       559,435         Other Pensions       16,435       —       16,435         Long Service Leave       205,475       50,230       255,705         4,363,287       Study Leave       191,368       —       191,368       4,799,650         Farm         Wages       —       206,208       206,208         208,099       Maintenance       —       19,100       19,100       225,308         Mortlock         Salaries and Wages       —       97,338       97,338	2,188,300	Sports Grounds				2,226,777
Examinations 65,276 General Expenses 714,360 87,029 801,389 Engineering Services 981,945 216,031 1,197,976 Insurance 162,141 18,321 180,462 Special Grants 56,528 — 56,528 Supplementary Superannuation 16,191 — 16,191 Supplementary Pensions 546,540 12,895 559,435 Other Pensions 16,435 — 16,435 Long Service Leave 205,475 50,230 255,705 4,363,287 Study Leave 191,368 — 191,368 4,799,650  Farm Wages — 206,208 206,208 208,099 Maintenance — 19,100 19,100 225,308  Mortlock Salaries and Wages — 97,338 97,338	-		1 215 567	142.210	1 450 005	
General Expenses			1,313,367	143,318		
Engineering Services 981,945 216,031 1,197,976 Insurance 162,141 18,321 180,462 Special Grants 56,528 — 56,528 Supplementary Superannuation 16,191 — 16,191 Supplementary Pensions 546,540 12,895 559,435 Other Pensions 16,435 — 16,435 Long Service Leave 205,475 50,230 255,705 4,363,287 Study Leave 191,368 — 191,368 4,799,650 Farm Wages — 206,208 206,208 208,099 Maintenance — 206,208 206,208 Mortlock Salaries and Wages — 97,338 97,338		General Expenses		87,029		
Special Grants       56,528       —       56,528         Supplementary       Supprannuation       16,191       —       16,191         Supplementary Pensions       546,540       12,895       559,435         Other Pensions       16,435       —       16,435         Long Service Leave       205,475       50,230       255,705         4,363,287       Study Leave       191,368       —       191,368       4,799,650         Farm       Wages       —       206,208       206,208         208,099       Maintenance       —       19,100       19,100       225,308         Mortlock         Salaries and Wages       —       97,338       97,338		Engineering Services	981,945	216,031	1,197,976	
Supplementary Superannuation				18,321		
Superannuation       16,191       —       16,191         Supplementary Pensions       546,540       12,895       559,435         Other Pensions       16,435       —       16,435         Long Service Leave       205,475       50,230       255,705         4,363,287       Study Leave       191,368       —       191,368       4,799,650         Farm Wages       —       206,208       206,208         208,099       Maintenance       —       19,100       19,100       225,308         Mortlock Salaries and Wages       —       97,338       97,338			30,328	· —	30,328	
Supplementary Pensions 546,540 12,895 559,435 Other Pensions 16,435 — 16,435 Long Service Leave 205,475 50,230 255,705 4,363,287 Study Leave 191,368 — 191,368 4,799,650 Farm Wages — 206,208 206,208 208,099 Maintenance — 19,100 19,100 225,308 Mortlock Salaries and Wages — 97,338 97,338			16,191		16,191	*
Long Service Leave			546,540	12,895	559,435	
4,363,287     Study Leave     191,368     —     191,368     4,799,650       Farm       Wages     —     206,208     206,208       208,099     Maintenance     —     19,100     19,100       Mortlock       Salaries and Wages     —     97,338     97,338				50.220		
Wages — 206,208 206,208 208,099 Maintenance — 19,100 19,100 225,308 Mortlock Salaries and Wages — 97,338 97,338	4,363,287			30,230		4,799,650
208,099 Maintenance		=		206.200	206.200	
Salaries and Wages — 97,338 97,338	208,099		_			225,308
				05.111	07.555	
	109,210		_			116,438

#### General Notes on the Accounts

1.	Appropriations towards future expenditure	\$
	(a) Income Carried Forward	137,019
	(b) Income Carried Forward—	
	Departmental Staffing Committee	273,000
	(c) Income Carried Forward—	
	Services Staffing Committee	55,000
	(d) Income Carried Forward—	,
	Equipment and Maintenance Committee	20,000
	(e) Engineering Services Savings—North Terrace	144,448
	(f) Engineering Services Savings—Waite	4,030
		\$633,497

- The above expenditure does not include expenditure for research and educational purposes
  of Grants received from Outside Sources totalling \$3,647,772 detailed on pages 1171-1197
  inclusive of these accounts
- 3. A further re-grouping of Income and Expenditure accounts and Balance Sheet figures has been made, and to ensure proper comparability with the previous year those figures have been adjusted similarly.

D. R. BEECHER, Bursar.

We report that we have audited the various Books of Account and other records relating to the Income and Expenditure of The University of Adelaide in respect of the year which ended 31 December, 1979 and we certify the above statement to be a correct abstract of such Income and Expenditure during the above period.

We further certify that in terms of sections 6 and 7 of the States Grants (Tertiary Education Assistance) Act 1978 and subsequent amendments, in relation to the year 1979, the above financial statement correctly sets out the Commonwealth Grants received by the University of Adelaide, that the Commonwealth Grant for recurrent purposes paid to the University in that year has been applied for expenditure (other than for the purposes of land, buildings and equipment expenditure as defined in the Act) on University purposes and that the Commonwealth Grant of \$548,000 has been applied for expenditure on special research purposes.

DELOITTE HASKINS & SELLS, Chartered Accountants.
TOUCHE ROSS & CO., Chartered Accountants.

Adelaide, 30 June, 1980.



# 1979—INCOME AND EXPENDITURE ACCOUNT—SUPPORTING SCHEDULES DEPARTMENTAL FUNDS EXPENDED—1979

Faculty and	L	ABORATOR	Y	1.	ARCH	,	TOTAL	
Department	Salaries and Wages	Maintenance	Furniture	Salaries and Wages	Maintenance	Conference and Vis. Scholars	Scholars	TOTAL \$
ARCHITECTURE	471,798	17,278	320	264	3,270	3,577	11,257	507,764
ARTS Anthropology Centre for Asian Studies Classics Education English French Geography German History Language Laboratory Library Studies Philosophy Politics Psychology Napier Building Management Committee	326,779 117,344 243,564 513,458 590,770 214,230 355,341 237,676 770,537 75,166 4,196 224,145 407,335 681,405	11,862 1,541 4,651 11,390 7,185 3,464 23,808 2,486 2,467 2,607 6 487 5,337 39,893	417 1,700 — 117 990 223 236 — 86 220 — 230 566 69	3,167 	6,163 786 1,486 7,299 4,364 87 1,643 1,599 9,693 449 — 1,607 4,471 18,670	767 41 750 3,108 3,958 889 682 1,160 5,026 — 1,107 3,056 5,113	20,818 ———————————————————————————————————	369,973 121,412 250,451 538,980 623,113 218,893 385,994 244,817 821,892 78,442 4,202 228,026 440,835 760,638
DENTISTRY Dental Health Oral Biology Oral Pathology and Oral Surgery Restorative Dentistry  ECONOMICS Commerce Economics	293,532 180,042 185,577 542,250 321,665 787,591	4,635 5,706 3,584 7,334 8,691 9,642	2,061 88  694 1,707	1,050 — — — 2,420	4,780 1,362 4,993 4,752 3,497 6,874	1,044 971 471 1,549 2,546 7,398	2,371 2,388 — — — — 11,386	303,991 193,563 197,101 555,885 337,093 827,018

(Continued next page)

SCHEDULE A

NORTH TERRACE

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Faculty and	L	ABORATOR	Y	RESEARCH				TOTAL
Department	Salaries and Wages	Maintenance	Furniture	Salaries and Wages	Maintenance	Conference and Vis. Scholars	Scholars	\$
ENGINEERING Chemical Civil Electrical Mechanical Workshop	439,880 608,656 548,023 585,854	24,040 32,200 37,414 33,693 8,543	401 53 2,534 280	1,840 — 7,536	9,861 10,672 17,673 6,995	1,095 3,448 2,490 2,709	8,094 9,731 12,190	477,117 663,123 617,865 649,257 8,543
LAW	837,040	7,190	620	1,704	2,084	989	_	849,627
MATHEMATICAL SCIENCES Applied Mathematics Computing Science Mathematical Physics Pure Mathematics Statistics	455,288 394,643 152,936 360,484 211,063	6,041 7,733 2,911 3,174 2,055	134 1,419 202 —	948 482 — 711	8,329 6,889 1,235 2,688 680	6,033 1,408 3,813 3,488 1,337	7,832 3,234 8,428 22,112	484,605 415,808 169,525 392,657 215,135
MEDICINE Anatomy Community Medicine Medicine Medical Workshop Medical Animal House Obstetrics and Gynaecology Paediatrics Pathology Psychiatry Surgery Surgery Surgery—Hospital Animal House Clinical Pharmacology	432,544 154,176 503,810 72,945 54,553 324,059 343,824 310,807 310,634 379,993	14,165 3,418 9,570 2,450 11,531 2,141 2,986 8,485 5,120 5,194 3,926 265	54		6,335 5,337 6,239 — 14,859 5,613 5,922 3,709 4,730 —	901 687 1,156 — 1,898 623 1,321 1,940 1,368 —	329   4,672   988	454,328 163,618 522,484 75,395 66,084 347,629 353,046 326,535 321,812 392,273 3,926 265
MUSIC Music Performing Arts	732,754 40,198	24,551 634	117	_	9,103	1,007	11,955	779,370 40,949

Frank, and	L	ABORATOR	Y	RESEARCH				TOTAL
Faculty and Department	Salaries and Wages	Maintenance	Furniture	Salaries and Wages	Maintenance	Conference and Vis. Scholars	Scholars	TOTAL \$
SCIENCE Biochemistry Botany Chemistry, Organic Chemistry, Physical and Inorganic Genetics Geology and Mineralogy Geology, Economic Mawson Institute Microbiology Physics Physiology Zoology Social Biology Protein Sequencing—Botany	497,753 482,406 617,329 851,754 352,369 556,997 213,332 105,015 343,306 985,925 487,306 551,293	39,469 32,817 45,694 58,245 14,440 25,503 11,325 9,997 20,244 62,113 32,760 42,190 364 5,175	225 449 — 98 821 — 62 875 759 —	1,190 3,604 8,437 — — 5,435 — 2,533 —	18,571 20,012 19,058 21,248 5,794 17,529 3,981 2,549 13,185 20,085 10,469 29,589 —	2,987 195 1,194 2,750 128 6,712 1,968 — 2,005 4,636 1,263 2,117 —	29,303 14,410 11,773 13,663 4,044 15,833 12,789 34,650 6,978 10,603 4,695	588,308 551,479 698,652 956,097 376,873 623,395 243,395 122,996 413,390 1,082,332 543,276 630,643 364 5,935
OTHER DEPARTMENTAL SERVICES Advisory Centre for University Education Central Animal House Centre for Physical Health Computing Centre Health Service Medical School Administration Student Counselling Service Dean's Office— Arts	95,286 100,079 76,780 469,748 94,007 69,270 93,357	4,510 33,243 1,616 292,627 850 3,881 3,118	1111111		507 = = 60 =	249 — — — — — ——————————————————————————		100,552 133,322 78,396 762,375 95,086 73,151 96,475
Dentistry Engineering Science		4,226 263 310	<u>-</u> -	=		_ _ _	<u> </u>	4,226 263 310

Faculty and	L.	ABORATOR	Y	RESEARCH				TOTAL
Department	Salaries and Wages	Maintenance	Furniture	Salaries and Wages	Maintenance	Conference and Vis. Scholars	Scholars	\$ S
MISCELLANEOUS Administration Continuing Education (including		10,325	1,182	_		·	_	11,507
Radio Station) Electron Microscope Electron Optical Centre Environmental Studies Library	263,853 47,058 	30,007 3,704 2,173 5,467 68,449	152 62 842 —		2,222 	74 74 1,476 717		294,012 53,120 3,015 55,694 69,166
Library Books for Research Purposes	-	<u>-</u>	_		41,313		_	41,313
Library Complex Management Committee Maternity Leave Radiation Safety Vice Chancellor's Emergency Fund Visiting Overseas Scholars Publications	12,392 17,848	226 1,187 1,099 —	- - - - - -	- <u>-</u>		23,055	-  -  -  -  -	226 12,392 1,187 18,947 23,055 29,912
	23,226,435	1,302,058	21,065	61,180	478,986	132,619	374,510	25,596,853

# 1979—INCOME AND EXPENDITURE ACCOUNT—SUPPORTING SCHEDULES DEPARTMENTAL FUNDS EXPENDED—1979

SCHEDULE A

WAITE INSTITUTE

Faculty and		L	ABORATOR	Y	RESEARCH				TOTAL
Department				Furniture	Salaries and Wages	Maintenance	Conference and Vis. Scholars	Scholars	TOTAL \$
AGRICULTURAL SCIENCE Agricultural Biochemistry Agronomy and Plant Breeding Animal Physiology Biometry Entomology Plant Pathology Plant Physiology Soil Science		387,366 460,552 147,535 	11,981 19,037 9,032 4,040 21,369 14,205 10,588 14,188		38 182 23,328 636 — 3,210 1,055	4,673 6,882 3,824 136 13,315 5,697 5,456 13,177	1,320 2,226 1,349 128 767 841 456 545	8,574 2,513 3,089 22,367 12,307 30,513	413,952 491,210 165,011 27,632 391,251 443,398 292,067 214,131
MISCELLANEOUS Animal Facilities Electron Microscope Engineering Workshop Faculty Laboratory Glasshouses Meteorology Station Radiation Hazards Committee South Wing Basement Director's Laboratory Administration Photographic Services Visiting Overseas Scholars		14,014 = 1,010 = - 1,010	6,116 1,702 102 16,412 5,555 55 113 1,024 996 333 194			     549  			6,116 1,702 102 30,426 5,555 55 113 1,024 2,555 375 194 4,000
TOTAL WAITE INSTITUTE	\$	2,180,480	137,042	194	28,449	53,709	11,632	79,363	2,490,869
TOTAL NORTH TERRACE	\$	23,226,435	1,302,058	21,065	61,180	478,986	132,619	374,510	25,596,853
TOTAL	\$	25,406,915	1,439,100	21,259	89,629	532,695	144,251	453,873	28,087,722

# General Expenses

Total	1978 Waite	North Tc.		North Tce.	1979 Waite	Total
32,232	_	32,232	S.A.T.A.C	28,700	_	28,700
4,200	· <del>-</del> ·	4,200	Overseas Study Awards	4,429		4,429
41,484	22,710	18,774	Miscellaneous Charges	15,384	23,036	38,420
201,870	33,938	167,932	Printing and Stationery	166,393	37,853	204,246
41,766		41,766	Advertising	37,883	2,144	40,027
9,277 121,402	12,703	9,277 108,699	Bank Charges, Duty Stamps and Exchange	9,947 123,694	9,999	9,947 133.693
8,742	12,703	8,742	Postages	4,588	9,999	4.588
5.050	_	5,050	Senate and other Elections	5,179		5,179
72,480	_	72,480	Calendar	70.055		70.055
17,092	2,928	14.164	Laundry Services.	14,224	2,263	16,487
19.092	2,564	16,528	Travelling Expenses	11,613	7,576	19,189
25,024		25,024	Travelling Expenses	28,589		28,589
19,639	_	19,639	General Vehicle Running Costs	45,582	500	46,082
785	_	785	Defence of Excellence Seminar	<u> </u>	·	<u> </u>
11,620		11,620	Open Day Expenses	-	<del></del> .	. —
5,280	_	5,280	Job Evaluation Study			_
23,015	_	23,015	Entertainment Expenses	25,257	. —	25,257
4,493	_	4,493	Rent of Premises	6,088		6,088
8,853	· —	8,853	Rubbish Collection	33,276	_	33,276
7,257		7,257	Teaching Hospital Fees	6,970	_	6,970
11,180		11,180	Dental Hospital Fees	10,997	· <del>-</del>	10,997
2,640		2,640	(1) Dental Equipment and Microscope Hire	25,317	· <del></del>	25 217
12,633 24,776	_	12,633 24,776	Auditors' Fees	17,200		25,317 17,200
2.645	2.645	24,770	Photography	17,200	2,420	2,420
1,326	1,326		Workshops' Overhead		1,238	1,238
1,520	1,320	<u> </u>	(2) Legal Expenses.	9,334	1,230	9,334
		- <u>-</u> ,	Contribution to Organ	15,000		15,000
735,853	78,814	657,039		715,699	87,029	802,728
2,457		2,457	Deduct Discount Received	1,339		1,339
2,437		2,437	Deauct Discoult Received	1,339		1,339
\$733,396	\$78,814	\$654,582		\$714,360	\$87,029	\$801,389
	: = <del>====</del>					

<sup>(1)</sup> Included with Departmental Maintenance 1979.(2) Included with Auditors' Fees in 1978.

# 1979 Income and Expenditure Account—Supporting Schedules

SCHEDULE	(
	_

# Engineering Services

				1979	
Waite	North Tce.		North Tce.	Waite	Total
116,860	320,226	Electricity	379,589	126,489	506,078
1,618		Gas			27,091
2,814	17,660	Heating Oil	4,773	5,054	9,827
36,757	120,469	Water		43.582	173,243
_		Air Conditioning and Ventilation		<del></del>	73,035
_		Maintenance of Lifts		·	52,556
		Fire Protection Charges		872	15,524
29,176		Telephones			340,622
149	<del></del>	Safety Committee		<del>-</del>	<del></del>
\$187,374	\$841,577		\$981,945	\$216,031	\$1,197,976
	116,860 1,618 2,814 36,757 — 29,176 149	116,860 320,226 1,618 16,418 2,814 17,660 36,757 120,469 — 58,073 — 50,958 — 14,302 29,176 243,471 149 —	116,860       320,226       Electricity.         1,618       16,418       Gas         2,814       17,660       Heating Oil         36,757       120,469       Water         —       58,073       Air Conditioning and Ventilation         —       50,958       Maintenance of Lifts         —       14,302       Fire Protection Charges         29,176       243,471       Telephones         149       —       Safety Committee	116,860       320,226       Electricity	116,860       320,226       Electricity       379,589       126,489         1,618       16,418       Gas       25,783       1,308         2,814       17,660       Heating Oil       4,773       5,054         36,757       120,469       Water       129,661       43,582         —       58,073       Air Conditioning and Ventilation       73,035       —         —       50,958       Maintenance of Lifts       52,556       —         —       14,302       Fire Protection Charges       14,652       872         29,176       243,471       Telephones       301,896       38,726         149       —       Safety Committee       —       —

### SCHEDULE D

#### Insurance

1978						1979	
	Total	Waite	North Tce.		North Tce.	Waite	Total
	82,532 151,115	6,804 19,704	75,728 131,411	General	89,128 73,013	6,322 11,999	95,450 85,012
	\$233,647	\$26,508	\$207,139		\$162,141	\$18,321	\$180,462

# 1979 Income and Expenditure Account—Supporting Schedules

SCHEDULE E 1978	Special Grants	1979
1,000 1,000 12,600 12,276 6,000 100 6,962 100	The University of Adelaide Club Theatre Guild S.A. Postgraduate Medical Assoc. Inc. Planning. Aust. Inst. of Nuclear Science & Engineering Adelaide University Regimental Band Waite Institute Cafeteria University of Adelaide Women's Club.	12,499 11,000 9,450 9,131 6,600 100 7,648 100
\$40,038		\$56,528
SCHEDULE F	Other Income	1979
4,300 1,320 3,909 1,000 10,209 4,807 156,259 65,909 5,061 283 1,072	Calendar Sales Hire of Rooms Statements of Academic Record W.E.A. Office Rent Commission Late Fees. Computing Centre. Anatomy (S.A.I.T.) Special Subsidy. Administration Charge Australian Music Examinations Board. Sundry. Special Subsidy—S.Y.E.T.P. Administration Charge—S.A.T.A.C.	5,667 1,482 4,133 1,000 10,297 5,312 183,001 71,607 5,439 — 670 3,341
\$254,129		\$291,949

#### THE UNIVERSITY

Statement of Balances of Capital

LIABILITIES AND	TRUSTS		
North Terrace			
Schedul	е	•	
Contributions to Land and Buildings	\$	1979 \$	1978 \$
Endowments and Donations.  Australian Government.  Government of South Australia  Accumulated Funds.	2,859,845 13,041,005 8,288,477 1,537,767		2,860,777 12,621,393 8,298,477 1,492,163
		25,727,094	25,272,810
Endowments, Special Funds and Credit Balances Endowments Fund for Replacement of Major Plant Grant for Medical Sciences Building Accumulated Funds for Building Projects Bank of Adelaide—Current Account Scholarship Funds (1) Library Funds (2) Special Funds (3) Superannuation Funds (balance)	5,039,493 129,206 7,500,342 566,251 1,513,318 339,497 93,318 5,180,231 523,746		4,411,620 29,206 6,748,750 389,641 1,451,810 301,595 72,321 4,643,476 831,541
		20,885,402	18,879,960
Carried Forward		46,612,496	44,152,770

# OF ADELAIDE

### Accounts at 31 December, 1979

ASSETS	3		
North Terrace			
Schedule	?	1070	1079
T. J. ID W.	\$	1979 \$	1978 \$
Land and Buildings University Site and Improvements University Buildings Other Land and Buildings	266,414 25,016,122 444,558		266,414 24,561,838 444,558
		25,727,094	25,272,810
			•
Investment of Other Endowments and Special Funds and Debit Balances			
Current Balances: Composite Fund Investments (at cost) Short Term Investments General Investments Engineering Services—Investment Current Balances:	3,799,120 4,845,964 1,341,935 450,000		4,705,379 3,556,383 1,356,461 —
Agent General for S.A., London	29,920 28,542 1,460,288 8,929,633		23,304 30,078 1,278,266 7,761,520 168,569
		20,885,402	18,879,960
Carried Forward		46,612,496	44,152,770

# THE UNIVERSITY

255,167 290,017 22,246

265,640 7,352,280

\$76,849,224

Statement of Balances of Capital

#### LIABILITIES AND TRUSTS

North Terrace			
Schedule		•	
		1979	1978
	\$	\$	\$
Brought forward		46,612,496	44,152,770
Funds Provided for Equipment and Furniture Donations and Grants Australian Government Government of South Australia Accumulated Funds	5,209,363 9,873,023 4,959,192 324,999		4,690,658 7,651,958 4,959,192 310,935
Funds Provided for Library Books Donations and Grants	327,417 4,941,825 3,440,043 173,075 1,675		278,394 3,840,243 3,440,043 172,751
·		29,250,612	25,344,174
	4		
		•	
Waite Agricultural Research Institute			
Endowments	731,092		688,475
Funds Provided for Buildings Endowments, Grants and Donations Australian Government Government of South Australia Accumulated Income	786,830 1,018,887 651,945 185,708		786,830 894,999 641,945 185,708
Funds Provided for Equipment and Furniture Grants and Donations	1,505,168 1,064,257 996,374 74,780		1,354,911 895,188 996,374 74,780

405,414 290,017 22,246

423,235

8,155,953 \$84,019,061

Funds Provided for Library
Australian Government.
Government of South Australia
Accumulated Income.

Unexpended Funds.....(4)

### OF ADELAIDE

### Accounts at 31 December, 1979

ASSETS	S		
North Terrace		•	
Schedule	?		
		1979	1978
Brought forward	\$	\$ 46,612,496	\$ 44,152,770
Equipment Equipment and Furniture Library Books and Binding	20,366,577 8,884,035		17,612,743 7,731,431
		29,250,612	25,344,174
		i	
Waite Agricultural Research Institute			
Share and Stock Investments Other Investments Funds held by Trustees Land and Site Improvements Buildings Buildings in Progress Equipment and Furniture Library Current Balances:	1,835 749,083 230,207 204,133 2,439,237 134,476 3,640,579 717,677		1,835 360,863 230,207 204,133 2,305,349 305,778 3,321,253 567,430
Cash, Debtors and Stocks(8)	38,726		55,432

8,155,953	7,352,280
\$84,019,061	\$76,849,224

THE UNIVERSITY

Statement of Balances of Capital

#### LIABILITIES AND TRUSTS

#### Contingent Liabilities

In respect of guarantees given by the University for Staff Housing.

Liability for Long Service, Holiday and Sick Leave

The Commonwealth Government provides from recurrent grants the funds for Long Service, Holiday and Sick Leave in the year the expenditure is incurred. No provision therefore has been made in the accounts by way of contingency for these liabilities.

Unfunded Liability—Superannuation Scheme A

Following actuarial advice that the University was unfunded at 31 October, 1979 to the ronowing actuarial advice that the University was unfunded at 31 October, 1979 to the extent of \$1,170,000 with regard to its undertakings to existing pensioners who retired to 1 November, 1979 under the provisions of the "old" Superannuation Schemes, a payment of \$400,000 to reduce this shortfall was made from Recurrent Funds in 1979 to a Trustee for the pensioners. The remaining unfunded liability of \$770,000 will be found out of future Recurrent Funds.

#### Contingency

Bequests in Deceased Estates, subject to Life and Other Interests:

C. Phillipson G. M. Dowling

L. A. Shanasv

R. A. M. McConnochie E. C. E. Munton G. E. I. Borthwick

M. F. Simms

F. Beeching

P. S. Hossfeld R. M. Laffer

J. S. Davies

C. T. K. Turner W. H. Essex C. T. Fisher

H. Hughes (Balance)

E. MacMeikan (Balance)

R. F. Mortlock (Balance)

P. Waite (Balance) R. T. Melrose (Balance)

W. H. Sandland (Balance)

We report that we have examined the above statement showing the financial position of The University of Adelaide in respect of Capital Funds as on 31 December, 1979, and have compared same with the entries in the various Books of Account and other records relating to the affairs of the University, and as a result of our examination and audit we do certify that the above statement is a correct abstract of the Books of Account. We further report that the securities, et cetera, representing the investments shown in the above statement, as well as the Land Grants and Certificates of Title belonging to the University, have been verified by us.

#### OF ADELAIDE

Accounts on 31 December, 1979

#### **ASSETS**

Contingency
Bequests in Deceased Estates, subject to Life and Other Interests:
"as listed opposite"

D. R. BEECHER, Bursar.

TOUCHE ROSS & CO., Chartered Accountants. DELOITTE HASKINS & SELLS, Chartered Accountants.

Adelaide, 30 June, 1980.

NORTH TERRACE

Schedules—Capital Accounts

SCHEDULE 1

Prizes and Scholarships

Name	Opening Balance 1/1/79	Income	Expenditure	Closing Balance 31/12/79
(Prizes unless indicated)	\$ .	\$	\$	\$
AGRICULTURAL SCIENCE Aust. Institute of Agricultural Science S.A. Board D. B. Adam Memorial K. P. J. Barley Memorial Award R. K. Morton Scholarship T. E. Barr Smith Travelling Scholarship C. J. Everard Scholarship	20 Dr. 334 426 218 10 20,151	20 108 593 263 2,159 18,840	20 30 500 — 6,333 15,148	20 Dr. 412 519 481 4,164 Dr. 23,843
ARCHITECTURE Royal Aust. Planning Institute Aust. Gypsum Plaster Award Dean W. Berry James Hardie Royal Aust. Institute of Architects (S.A. Chapter) S.A. Gas Company. Wormald Bros. Clive E. Boyce Scholarship Kenneth and Hazel Milne Travelling Scholarship	20 Dr. 300 Dr. 50 Dr. ————————————————————————————————————	20 300 50 — 300 475 200 1,244 2,905	50 150 450 475 100	50 Dr. 150 Dr. 300 Dr. 100 — 5,067
ARTS A. J. Schulz Andrew Scott Anna Florence Booth Sir Archibald Grenfell Price. Australian Psychological Society Barr Smith Bundey Byard. Charles Fenner Edith A. Puddy. Edith Hubbe and Harriet Cooke E. W. Benham Prizes and Medal Hope Crampton. J. G. Cornell James Gartrell Jefferis Memorial Medal. John Howard Clark John Lewis Lynda Tapp—History. M. Rees George Memorial Natalia Davies. Roby Fletcher Shell Prize in Applied Psychology Sir Archibald Strong Memorial		24 291 21 100 40 72 87 18 55 154 400 63 222 82 9 209 10 405 66 56 28 100 201 35	120 16 200 11 100 — 50 60 10 18 100 1,529 14 150 36 — 50 20 40 20 100 130 24	120 Dr. 46 1,837 68 — 186 431 420 34 79 771 200 67 591 555 18 1,482 10 Dr. 319 382 — 2 — 1,312
Violet de Mole Scholarship.  Weimar-Ohlstrom.  G. H. Lawton  B. R. Elliott  John F. Kennedy Memorial Scholarship  Pauline Price Scholarship.  Mountford Award.  P. W. Rice Scholarship  Tinline Scholarship.  Fred Johns Scholarship  United Nations Prize	34 - 1,037 1,614 298 2,605 27,462 1,100 12,701 1,063	82 54 84 93 128 207 836 7,253 275 1,414	20 45 — 400 150 — 2,082 55	62 43 84 1,130 1,342 355 3,441 32,633 1,320 14,115 1,176

# Schedules—Capital Accounts

NORTH TERRACE

Prizes and Scholarships

Name	Opening Balance 1/1/79	Income	Expenditure	Closing Balance 31/12/79
Schedule 1 (continued)	\$	\$	\$	\$
(Prizes unless indicated)				
DENTISTRY				
Austin Bazely	126	56	35	147
Australian Dental Association	10	100	105	5 Dr. 10
Dental Board of S.A.	219	164	_	383
General Practice Study Group	40 Dr.	40	-	
Malcolm Joyner	50 Dr. 269	50 48	50 30	50 Dr. 287
R. G. Willoughby Award.	1.090	508		1.598
Oliver Rutherford Turner Award	17,890	4,892	*17,890	4,892
G. O. Lawrence—Scholarship or Fellowship	9,446	6,171	\ <del>-</del>	15,617
Herbert Gill-Williams Scholarship  J. L. Eustace Scholarship	11,230 10,729	5,206 8,711	11,555 360	4,881 19,080
A. M. Horsnell Student Travel	10,729	385		385
* Capitalisation of accumulated income		*		
ECONOMICS			:	
Australian Society of Accountants	150 Dr.	150	150	150 Dr.
E. A. Russell Memorial	36	426	351	111
Economic Society	42 Dr.	42	42	42 Dr.
I.B.M.—Economic Statistics Institute of Chartered Accountants	40 Dr. 50 Dr.	40 100	90	40 Dr.
John Lorenzo Young Scholarship	998	144	30	1,112
Professor J. H. B. Tew.	75	25	10	90
Chamber of Commerce and Industry	100 Dr.	200 100	100 100	100 100 Dr.
Archibald Mackie Bursary	263	42		305
George Thompson Bursary	576	79	_	655
John Creswell Scholarship	3,946	590	— 878	4,536
Joseph Fisher Medal and Lecture	2,681	1,334	. 6/6	3,137
ENGINEERING Albright & Wilson	63 Dr.	63	63	63 Dr.
Australian Welding Institute	40 Dr.	40	40	40 Dr.
Cable Makers Association		21	21	
Chamber of Commerce and Industry	200 Dr.	_	100	300 Dr.
E.T.S.A.—Electrical Power Engineering.	21 Dr. 100 Dr.	121	21 100	42 Dr. 79 Dr.
Esso Standard Oil	40 Dr.	100	100	40 Dr.
E. V. Clark	183	16	15	184
Gerard Industries	100 Dr.	200	100	 100 Dr.
Humes	100 Dr. 100 Dr.	100 100	100 100	100 Dr. 100 Dr.
James Hardie	150 Dr.	150	150	150 Dr.
Johns-Perry	42 Dr.	42	42	42 Dr.
Lokan	128 200 Da	29	. 18	139
Petroleum Refineries	200 Dr.	200 50	50	
Philips Electrical Industries—Electronics	200 Dr.	150	150	200 Dr.
Rutter Jewell—Thomas Medal and Prize	795	143	-	938
Shell—Chemical Engineering Shell—Mechanical Engineering	200 Dr.	100 100	100	200 Dr.
Sir Robert Chapman.	60	81	50	 91
Tubemakers of Aust. Ltd	50 Dr.	50	50	50 Dr.
Western Mining Corporation	300 Dr.	300	150	150 Dr.
Dow Chemical (Aust.) Scholarship	600 Dr.	500 600	500 1.200	1,200 Dr.
Sir William Goodman Scholarship	3,978	915	133	4,760
Angas Engineering Exhibition	4,976	1,168	_ 1	6,144
Frank Perry Scholarship	6,611	3,581	2,500	7,692

# Schedules—Capital Accounts

#### NORTH TERRACE

#### Prizes and Scholarships

Name	Opening Balance 1/1/79	Income	Expenditure	Closing Balance 31/12/79
Schedule 1 (continued) (Prizes unless indicated)	\$	\$	\$	\$
LAW	,			
Angas Parsons	1,029	245	200	1,074
Justin Skipper	406 328	62 208	40 170	428 366
Roy Frisby Smith	328	336	170	216
Stow	431	129	30	530
Taxation Institute of Australia	100 Dr.			_
Thomas Gepp	453	77	50	480
Law Society Centenary	_	_	100	100 Dr.
Baker Scholarship	13,400	2,106	- 1	15,506
MATHEMATICAL SCIENCE				
Amin Hasan Abdi	105	_ 73	40	138
E. A. Cornish Memorial	170	113	75	208
J. R. Wilton	21	30	25	26
MEDICINE				
A.M.A	52 Dr.		—   16	151
Archibald Watson	125	42	16	180
Barbara Meyler Memorial	3,415	180 667		4.082
Bertha H. Sudholz	3,413	50	50	
Christopher and John Campbell	267	113	75	305
Dr. Chas. Gosse Lectureship	5,213	668	3,463	2,418
Dr. Davies-Thomas	240	129	80	289
Everard	496	223	150	569
Elder	l –	20	20	
Eugene Abraham Matison	746	157		903
Frank Hone Memorial		32	32	108
H. K. Fry	87 271	71 284	50 272	283
Ian Furler	75	30	10	95
Keith Sheridan	2,187	608	320	2,475
Lister	164	33	12	185
Lynda Tapp—Physiology	583	436	325	694
Mead Johnson Paediatrics		105	52	53
Roche Products	20 Dr.		20	
Ruth Heighway Memorial	194	144	90	248 632
Shorney	804	228 50	400 50	032
Sir Trent de Crespigny Memorial			100	100 Dr.
T. L. Borthwick Memorial	82	25	-	107
W. A. Dibden		50	50	
William Gardner	20	385	90	315
Wood Jones and Herbert John Wilkinson	5,406	1,218	353	6,271
Sir Hugh Cairns Memorial	1,301	379	140	1,540
John Barker Scholarship	6,863	1,126	617	7,372 2,290
T. G. Wilson Travelling Scholarship	1,688	602 4,950	_	4,950
· ·				
MUSIC Clement Q. Williams	228	115	70	273
Dr. Ruby Davy	455	131		586
Florence Cooke Violin	98	33		131
H. Brewster-Jones	124	57	_	181
Lucy Josephine Bagot	135	106	66	175
Iris M. Colly	974	88		1,062
Robert Whinham	137	36	40	133
Alexander Clark Memorial	387	119	50	456
Alex Burnard Scholarship	647	204	100	751

# Schedules—Capital Accounts

### NORTH TERRACE

# Prizes and Scholarships

Name	Opening Balance 1/1/79	Income	Expenditure	Closing Balance 31/12/79
Sahadula I (continued)	S	\$	\$	S
Schedule 1 (continued)	3	3	3	3
(Prizes unless indicated)	j	1	1	
Anders & Reimers Scholarship	1,256	334	99	1,491
Angela Lakin Memorial Scholarship	1,094	296		1,390
Daisy Burmeister Salotti Scholarships	2,597	636	258	2,975
E. Harold Davies Scholarship	595	176	81	690
Eugene Alderman Scholarship	636	215	99	752
Frederick Bevan Memorial Scholarship	480	201	99	582
Frederick E. Baxendale Scholarship	446	215	120	541
Gladys Lloyd Thomas Scholarship	379	149	36	492
Guli Magarey Scholarship	314	125	60	379
Josephine Christiansen Organ Bursary	382	106	75	413
Lieunau	295	23	75	243
Maud Puddy Scholarship	490	176	81	585
Mrs. Arno Pontt (May Gepp) Scholarship	255	105	132	228
Norman Chinner Scholarship	174	137		311
Selborne Moutray Russell Scholarship	1,647	411	180	1,878
J. Varley Scholarship	1,278	376	198	1,456
William Silver Scholarship	1,424	416	198	1,642
L. Richardson Scholarship		1,189	280	909
Allans Music Scholarship	51	400	·449	2
E. W. Stevens Scholarship	129	235	_	364
James Whitehead Scholarship	· .—	3	<b>–</b>	3
Athol Lykke Award	931	363	l – `	1,294
Elder Overseas Scholarship	11,757	2,777	4,800	9,734
Peter Battye Donation	1,513	l –		1,513
John Bishop Memorial Fund	_	13,609	_	13,609
SCIENCE		Ì		
C.S.R. Chemicals	_	200	200	
Elsie Marion Cornish	610	100	78	632
Ena Orrock Lewcock Award	47	64	50	61
J. G. Wood Memorial	527	123	95	555
Michael Smyth Memorial	_	238	200	38
Sir Kerr Grant Memorial	25 Dr.	25	25	. 25 Dr.
Sir Ronald Fisher—Genetics	446	67	37	476
Tate Memorial Medal Fund	183	27	_	210
Professor Sir Geoffrey Badger	59	273	200	132
Ernest Ayers Scholarship	2,329	545	583	2,291
James Barrans Scholarship	2,755	763	475	3,043
John Bagot Scholarship and Medal	2,505	315	150	2,670
Rennie Scholarship	151	76	45	182
MULTI-DISCIPLINARY				
Mabel Tapp—Matriculation Maths	234	133	100	267
William Culross	43	. 18	502	441 Dr.
Chapman Memorial Scholarship	1,916	522	200	2,238
Eric Smith Scholarship	587	169	_	756
Hartley Studentship	541	154	35	660
J. E. Jenkins Scholarship	3,171	1,824	1,030	3,965
John L. Young Scholarship.	611	337	315	633
J. R. Barker Scholarship		1,583	1,000	583
R. K. Morton Scholarship	582	289	150	721
Sir Ronald Fisher Memorial Scholarship	1,356	495	110	1,741
St. Alban Scholarship	467	69		536
Thornber Bursary	360	112	45	427
W. Donnithorne Award			72	9,841
	8.556	1.33/		
	8,556 12,327	1,357 2,550		
Bailleau Research Scholarship	12,327	2,550	_	14,877
Bailleau Research Scholarship	12,327 1,410	2,550 857	 500	14,877 1,767
Bailleau Research Scholarship David Murray Scholarship George Fraser Scholarship	12,327 1,410 3,587	2,550 857 5,707		14,877 1,767 4,877
Bailleau Research Scholarship	12,327 1,410	2,550 857	 500	14,877 1,767
Bailleau Research Scholarship David Murray Scholarship George Fraser Scholarship	12,327 1,410 3,587	2,550 857 5,707		14,877 1,767 4,877

NORTH TERRACE

Schedules—Capital Accounts

Schedule 2	
Library Funds	\$
T. E. Barr Smith Endowment Income	20.9
Sir William Mitchell Endowment Income	7,7
Elizabeth Jackson Fund Income	1,9
A.M.A	9,5
A. M. Simpson Income	
Bedford Industries	3
Australian Dental Association	2,40
Herbert Shorney Memorial	1
Library Deposits	8,4
Sir Henry Newland Bequest Sir Mark Mitchell—Periodicals Income	6.
Sir Mark Mitchell—Periodicals Income	40
General Donations	5
G. M. Badger	15,1
Violet de Mole	1,4
A. J. Schulz.	
Sir Mark Mitchell Bequest	1,1
J. C. Earl Estate	2,4
Special Collection	12,5
	\$93,3
CHEDULE 3	===
Special Funds	<b>Q</b>
A.M.P. Loan for Union Building	647,7
Flexibility Fund (private income)	85,2
Income Carried Forward	485,0
Income Carried Forward	371,3
Consulting and Research	123,6
Endocrinology	325 8
Medical Research Foundation	187.2
Medical Research Foundation Anonymous Donation—Medical School	187,2 125,2 35,2
Australian Journal	35.2
F. W. Benham Bequest—Income	17.4
Elder Hall Organ Fund.	151,8
J. S. Davies Bequest—Income	151,8 274,8
J. N. Konig Estate	32,1
Other Special Purpose	220,0
Realization of Surplus and Obsolete Equipment	33,1
Long Service Leave Provisions (Outside Grants etc.)	45,6
Outside Grants	431.7
Anti-Cancer Foundation	136,6
Provision for 27th Fortnight	
Workmen's Compensation Reimbursement	58,9
Xerox Copying—Accumulated Net Income. Government Grant, Teaching Hospital 1979	60,7
Government Grant, Teaching Hospital 1979	225,0
Commonwealth Grant for Students	132,1
Sundry Balances	234,7
Postgraduate Foundation in Medicine	
Animal Products Research Foundation	5,5
Vehicle Replacement Account	18,1
Public Examinations in Music	2,4
A. R. Riddle Estate	27,2
Nickel Mines of Australia	$\frac{21,1}{2}$
A II A Walles Fetter	22,4
A. H. A. Walker Estate	92,5 20,7
Evaluative Studies	20,7
Insurance Refunds	70,6
Student Loan Fund	25,9
Postana divata Committan in Dontist	
Student Loan Fund. Postgraduate Committee in Dentistry.	1107
Postgraduate Committee in Dentistry	110,7

\$5,180,231

# Schedules—Capital Accounts

Mortlock Sheep Operating Account	WAITE INSTITUTE	
Farm Sheep Account	SCHEDULE 4	
SCHEDULE 5           Cash, Debtors and Stocks         \$           Petty Cash         60           Petty Cash—Departmental         6,47           Stores and Uniforms         22,04           Petrol and Pump         57           Investment Interest accrued         3,51           Superannuation Investment Interest accrued         87,18           Short Term Investment Interest accrued         54,28           Commonwealth Government 1979 Recurrent Grant—Balance due         183,00           Sundry debtors         67,02           Prepayment—C.D.A.—Computer         109,94           Advance Payments         79,11           Elder Hall Organ         209,58           Sundry Balances         77,33           Commonwealth Student Loans         59,28           Suspense Account         28,96           Patent Accounts         12,21           Workmen's Compensation Insurance Premium overpayment         105,75           S.A.T.A.C.         17,39           Postgraduate Foundation in Medicine         83,50	Farm Sheep Account Mortlock Sheep Operating Account Mortlock Cattle Operating Account Mortlock Crop Account Mortlock Harvest Fund Anonymous Donation for Animal Science Engineering Services Savings A. Hannaford Estate—Income Outside Grants Consulting Funds Motor Vehicle Replacement Fund Realization Surplus and Obsolete Equipment Sundry Balances Funds provided for Charlick Property Mrs. D. Mortlock Donation for Equipment Ranson Mortlock Research Fund Long Service Leave Provision (Outside Grants)	\$ 163 6,530 1 2,293 3,395 17,151 24,430 54,900 97,558 1,665 16,955 4,864 13,811 148,000 738 2,700 28,081 \$423,235
Cash, Debtors and Stocks         \$           Petty Cash         60           Petty Cash—Departmental         6,47           Stores and Uniforms         22,04           Petrol and Pump         57           Investment Interest accrued         3,51           Superannuation Investment Interest accrued         87,18           Short Term Investment Interest accrued         54,28           Commonwealth Government 1979 Recurrent Grant—Balance due         183,00           Sundry debtors         67,02           Prepayment—C.D.A.—Computer         109,94           Advance Payments         79,11           Elder Hall Organ         209,58           Sundry Balances         77,33           Commonwealth Student Loans         59,28           Suspense Account         28,96           Patent Accounts         12,21           Workmen's Compensation Insurance Premium overpayment         105,75           S.A.T.A.C.         17,39           Postgraduate Foundation in Medicine         83,50	· · · · · · · · · · · · · · · · · · ·	
<u>-</u>	Cash, Debtors and Stocks Petty Cash Petty Cash—Departmental. Stores and Uniforms Petrol and Pump Investment Interest accrued Superannuation Investment Interest accrued Short Term Investment Interest accrued Commonwealth Government 1979 Recurrent Grant—Balance due. Sundry debtors Prepayment—C.D.A.—Computer Advance Payments. Elder Hall Organ. Sundry Balances Commonwealth Student Loans Suspense Account Patent Accounts. Workmen's Compensation Insurance Premium overpayment S.A.T.A.C. Postgraduate Foundation in Medicine	\$ 600 6,474 22,048 3,515 87,188 54,288 183,000 67,028 109,942 79,117 209,587 77,338 59,286 28,969 12,219 105,757 17,391 83,500 252,470

## THE UNIVERSITY OF ADELAIDE

### Schedules—Capital Accounts

North Terrace	
Schedule 6	
Buildings in Progress  34-36 Park Terrace.  33 Park Terrace Union Complex Additions. 101 Finniss Street. 123 Mackinnon Parade 65 Finnis Street Medical Sciences Building. 148-159 Mackinnon Parade Middleback Field Station. Medical School Upgrading Cattle Research Unit. Main Engineering—Strong Room Floor	\$ 52,489 100,025 647,745 61,989 49,788 35,291 7,456,970 233,949 72,052 1,995 207,858 9,482
	\$8,929,633
North Terrace	- -
Schedule 7	<b>o</b>
Income and Expenditure Appropriation Account Accumulated Deficit 31/12/78	168,569
Less Transferred from Private Income	(168,569)
	\$ <b>—</b>
Waite Institute	
Waite Institute Schedule 8	
	\$ 100 600 4,000 10,331 3,507 15,819 3,056 1,313 

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Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
ARCHITECTURE and TOWN PLANNING	South Australian Housing Trust  Premier's Department Australian Housing Research Council Department of Transport Department of Environment Australia Council	Research into aspects of low/medium density metropolitan housing S.A. Urban & Regional Planning Register Population dynamics and social infrastructure N.E.A.P.T.R. severance study National Estates grants Visit of Architectural Review editors	166 551 7,212 6,899 5,722 2,500	12 572 4,685 5,678
ARTS Anthropology	Australian Research Grant Committee Australian Research Grant Committee Australian Research Grant Committee Central Adelaide Regional Council for Social Development	Urbanization processes in a regional context A study of Bugis trade The Indian urban informal economy Grant for research	14,332 300 4,250 80	11,602 — 521
Centre for Asian Studies	The Japan Foundation Australian Research Grants Committee	Tutorship in Asian Studies Rural development planning in China	10,101	13,142 6,668
Education	Education Research & Development Committee Education Research & Development Committee	The modern Australian oral tradition and its educational significance The Hindmarsh Project	48 3,027	6,297
	Curriculum Development Centre	Rationale for education of a multi-cultural society	6,982	3,908
English	Australian Research Grants Committee  Australian Research Grants Committee	Studies in Australian culture; a series of books on aspects of Australian culture and society from the 1980's William Blake's use of the Bible; an annotated	12,725	<u> </u>
	Australian Research Grants Committee Australian Research Grants Committee Ian Potter Foundation	check-list of his biblical references, in his writings, conversation and graphic work Early imprint project South Australia Aspects of Australian culture and society Support for overseas study—Dr. A. Brissenden	6,396 — —	6,795 13,758 13,988 500

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
IRTS (Ctd)	Australian Describ County Committee	Origin of seconds, developed loss discuss	17 101	,
Geography	Australian Research Grants Committee Australian Research Grants Committee	Origin of recently developed landforms Regional variations in weathering and	17,181	_
	Australian Research Grants Committee	landform development on granitic rocks Past and future agricultural development on	1,000	8,636
	Australian Research Grants Committee Department of Housing and Urban Affairs	Eyre Peninsula The changing farm structure of South Australia Low rent board and lodging in Adelaide	6,757 6,768 1,951	4,832
History	Australian Research Grants Committee	A social study of New Zealand soldiers in the 1914-18 War, relating their wartime experiences to New Zealand society	1.158	
	Australian Research Grants Committee	A study of the Court of Charles VI of France	,	
	S.A. Department of Agriculture & Fisheries	(1380-1422) History of bovine-pneumonia	500	7,205
Politics	Australian Research Grants Committee	Thomas Playford (1837-1915): A biography of a colonial and federal politician	5,565	6,587
	Advisory Council on Inter-Government Relations	Research assistance	- 3,303 	929
Psychology	Australian Research Grants Committee	Choice, preference, and control as motivational determinants in the context of sensory reinforcement behaviour	11.043	12.246
	Australian Research Grants Committee	Attention, strategy and reaction time, with special reference to the effects of fatigue,	,	13,246
	Bedford Industries Inc. Education Research &	age, and mental handicap Research Fellowship Grant for research	13,156 15,245 32,584	14,740 16,293 2,210
	Development Committee The Nuffield Foundation	Investigation of characteristics of hyperactive	,	
	Department of Transport	children Postgraduate scholarship	9,990	34,449 10,037
	S.A. Department of Transport	Psychological factors in the design of workable road closure schemes	_	120

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
DENTISTRY Dental Health	N.H. & M.R.C.	The effect of experimental tooth movement upon the oxytalan fibre and capillary fenestrae in the periodontal ligament of the mouse	6,662	· · · · · · · · · · · · · · · · · · ·
	Colgate Palmolive Pty. Ltd. Australian Dental Research & Education Trust	Research in dental health Epidemiology of clefts of the primary and secondary palate in South Australia	53,208 54	36,932
Oral Biology	Australian Research Grants Committee	A comparative study of storage and release of neurohypophysial hormones in the laboratory rat and some xeric nature rodents e.g. notomys alexis and pseudomys australis	· ·	6,615
	N.H. & M.R.C.	Investigations of the pathways for the control of release of oxytocin and vasopressin from the posterior pituitary and median Microenvironmental effects on epithelial cell	9,805	_
	N.H. & M.R.C.	responses relative to tissue integrity  Studies on the cariogenic microorganism,	18,488	19,761
	N.H. & M.R.C.	streptococcus mutans Genetic studies of cranifacial morphology and growth	3,100	1,639
	Australian Dental Research & Education Trust	Microbiological studies on the epidemiology of dental caries	2,270	12,603 138
	National Heart Foundation  Anti-Cancer Foundation	The role of hyaluronic acid and maintenance of arterial integrity Grant for research	<u>-</u> -	10,588 643
Restorative Dentistry	N.H. & M.R.C. N.H. & M.R.C.	Long-term clinical success and failure rates of newer dental materials Postgraduate scholarships		400 8,260
	Australian Dental Research & Education Trust	Grant for equipment	_	1,886

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$	1174
ECONOMICS					-
Economics	Australian Research Grants Committee	Technological change in Australian agriculture development	3,770	4,393	
	Australian Research Grants Committee	Industrial relations under Prime Minister Chifley (1945-9)	6,444	6,437	
	Australian Research Grants Committee	A study of innovative behaviour in the diffusion of trace element technology		4,502	
	Director General of Transport Reserve Bank—Economic and Financial Research Fund	Postgraduate scholarship The structure of the market for Australian wool	505 763	4,502 —	
	Reserve Bank—Economic and Financial Research Fund	Merger and take-over activity in Australia	958		_
	Reserve Bank—Economic and Financial Research Fund Reserve Bank—Economic and Financial	The structure of the market for Australian wool	_	447	FINANCIAL
· • •	Research Fund Reserve Bank—Economic and Financial Research Fund	Diffusion of trace element technology Investigation into Australian transport industry	<u> </u>	3,695 462	TAL STA
	Reserve Bank—Economic and Financial Research Fund Reserve Bank—Economic and Financial	Impacts of Australian monetary policy The effects of concentration and tariffs on		6,457	STATEMENTS
	Research Fund Wool Research Trust Fund Wool Research Trust Fund S.A. Department of Transport S.A. Department of Transport S.A. Department of Transport	manufacturing industry Postgraduate programme in wool economics Fellowship Scholarship Survey of bicycle usage Economic futures study	486 30.829 3,730 3,486 806	23,669 7,609 4,257 200 2,500	TS
ENGINEERING Chemical	Australian Research Grants Committee	The microstructure and properties of steels	13,971	_	
Engineering	Australian Research Grants Committee	Very low-pressure pyrolysis of unsaturated hydrocarbons	12,778	19,653	
	Australian Research Grants Committee	Heat and mass transfer in gas-liquid fluidized beds	150	_	
	Australian Research Grants Committee	Dependence of bulk properties of polymers on their molecular properties	7,243	_	

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Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
ENGINEERING (Ctd) Chemical Engineering (Ctd)	Esso Standard Oil (Aust.) Ltd. State Energy Research Advisory Committee N.H. & M.R.C.	General support for research in Chemical Engineering  Alternative sources of energy Postgraduate scholarships	237 14,706 27,548	192 17,922 14,128
Civil Engineering	Australian Research Grants Committee  Australian Road Research Board Australian Road Research Board Engineering & Water Supply Department South Australian Salt Damp Research Committee Australian Welding Research Association Department of Transport Victorian Railways	A method for field measurement of strength and settlement parameters for stiff clays Shrinkage and creep of high strength concrete Design charts for large span metal arch culverts Management of water resources in the Little Para river area Salt damp research  The effect of root gaps on static and cyclic strengths of cruciform welded joints Scholarship Design of corrugated metal conduits	5,570 1,365 7,043 — 1,190 1,539 3,587 1,289	7,512 125 3,028 4,116 14,389
Electrical Engineering	Australian Research Grants Committee Australian Research Grants Committee General Motors-Holden's Pty. Ltd. Esso Standard Oil (Aust.) Ltd. Electrical Research Board Electrical Research Board Electrical Research Board Radio Research Board Telecom	Passive code responding devices Signal processing for predictive coding of speech wave forms Fellowship General support for research Control of variable speed drives System voltage and damping control Controllers for multi-machine power systems Fast real time digital processor hardware Integration of the passive subharmonic transponder Computer aided design Splicing speech signals in N dimensions Mobile radio systems for research laboratories	6,473 271 4,819 500 1,467 14,170 5,718 464 577 605	5,835 ————————————————————————————————————

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$	1176
ENGINEERING (Ctd) Mechanical Engineering	Australian Research Grants Committee Australian Institute of Nuclear Science and Engineering National Coal Research Committee S.A. Dept. of Industrial Affairs and Employment Grant, Spence & Associates Pty. Ltd. State Energy Advisory Committee	Gravitational stability and atmospheric turbulence Reactive acoustic attenuators for duct flow Effects of flow disturbances on noise radiation from pipes Study of sound radiation by holography Turbulent mixing (I) structure (II) noise (III) chemical reaction Natural-convective heat transfer in an inclined channel with flow restrictions at inlet and exit Flow control in wide angle diffusers Development of laminar natural-convective flow in a vertical duct heated in a prescribed manner Research on a coal-fired rotating fluidised bed combuster Noise control  General support for the advancement of engineering Mixing mechanisms and their enhancement for combustion of fuels	6,930 5,841 5,164 18,828 22,782 4,317 17,843 120 4,667 39,247 4,541	18,760 — 21,024 9,620 — 300 13,951 — 7,909 41,011 — 30,766	FINANCIAL STATEMENTS
LAW	Australian Research Grants Committee  Government of South Australia  Department of Environment	An annotated bibliography of primary and secondary source materials on Australian legal history Royal Commission into the non-medical use of drugs Environmental impact procedures project	10,756 3,467 6,608	16,300 857 2,528	

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Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
MATHEMATICAL				
SCIENCES Applied Mathematics	Australian Research Grants Committee Australian Research Grants Committee	Development of three dimensional spatial model of tide propagation in shallow waters Mathematical models for performance and con-	10,860	4,100
		gestion control in overload telecommunica- tions networks	7,137	17,613
	Australian Research Grants Committee	A new analytical method for the calculation of body-induced free-surface water waves and its experimental verification	10.905	12,708
	Australian Research Grants Committee Australian Research Grants Committee	Behaviour of ships in restricted water A study of fracture in fibre reinforced material	17,205	6,338
	Australian Research Grants Committee	Boundary integral equation method for the numerical solution of problems in engineering		12,527
	Australian Research Grants Committee	Application of the mathematical analysis to the non-invasive study of the <i>in vivo</i> mitral valve tissue		8,067
Mathematical Physics	Australian Research Grants Committee Department of Science Department of Science	Massless fields and C.C.R.'s Queen Elizabeth II Fellowship—Lohe Queen Elizabeth II Fellowship—Carey	732 6,821 18,848	19,248 22,205 20,320
Pure Mathematics	Australian Research Grants Committee	An investigation of parametric minimal		
		surfaces, capillary surfaces and related surfaces, with emphasis on topological		
	Australian Research Grants Committee	properties and boundary behaviour	8,523	, —
	Australian Research Grants Committee	Measures on groups—mathematical monograph	925	
Statistics	N.H. & M.R.C.	Preparation of age specific life tables	600	_
MEDICINE Anatomy	N.H. & M.R.C.	Immuno-labelling studies on transplantation		
	N.H. & M.R.C.	antigens Effect of lactation on ovarian follicular activity	11,466	_
		in the mouse		891

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
MEDICINE (Ctd) Community	Australian Research Grants Committee	A biography of Timothy Augustine Coghlan	8,766	320
Medicine	Australian Research Grants Committee	A practice of obstetrics and gynaecology in Australia 1850-1975	0,700	9.133
	A.N.Z.S.C.H.E.R.C.H.	Grant for research	_ :	1,101
	Commonwealth Department of Health Commonwealth Department of Health	Evaluation of home help services Kit evaluation of primary care	29,175	3,649 10,021
	Education Research & Development	Teachers, their context and how they cope with	17 150	,
	Committee Hospitals & Health Commission	it Randomised control trial of home help	17,152	15,268 8,868
				·
Medicine	N.H. & M.R.C.	Studies on the specific local and systemic anti-		
	•	body responses to enteric bacteria in ulcerative colitis	22,753	17,327
	N.H. & M.R.C. N.H. & M.R.C.	Postgraduate scholarship Postgraduate scholarship	13,165	12,151 1,756
	Smith, Kline & French Laboratories Ltd.	H <sub>2</sub> -receptor antagonists and agonists	28,004	28,274
	Pharmaceutical Industry Donors	General support for research in clinical pharma- cology	6,915	22,215
	Australian Tobacco Foundation	The effects of smoking on colostral and milk antibody preparation	14,769	66
	Department of Public Health	Measurement of mercury levels in people who	ŕ	00
	Education Research & Development	are large eaters of fish	162	
	Committee	Grants for research	11,027	10,570 1,245
	Fishing Industry Research Committee	Study of mercury compounds in fish	409	1,243
Obstetrics and	N.H. & M.R.C.	The pineal gland, its role in reproduction		
Gynaecology		development and during pregnancy	12,992	14,190
	N.H. & M.R.C.	Intra ovarian factors in the regulation of ovarian function	13,101	15,112
	N.H. & M.R.C.	Specific versus non-specific treatment of pelvic congestion		158
		Congestion		136

Faculty and Department	Source of Grant	Research Project	1978 \$	1979
MEDICINE (Ctd) Obstetrics and Gynaecology (Ctd)	N.H. & M.R.C.	Development and use of an <i>in vitro</i> placental perfusion model for the study of the endocrinology or parturition in the human neonatal		
•	NIII OMBG	body water turnover as an index of perinatal morbidity	_	6,033
	N.H. & M.R.C.	Neonatal body water turnover as an index of perinatal morbidity		9,966
	Hospitals & Health Services Commission	Assessment of efficiency and effectiveness of obstetric services	27,587	39,133
Paediatrics	Adelaide Children's Hospital Research Trust  Adelaide Children's Hospital Research Trust The Life Insurance Medical Research Fund Channel 10 Children's Medical Research Foundation	Lipid and apoprotein composition of plasma lipoproteins in relation to diabetes and familial hypercholesterofaemia in childhood  Research in paediatrics The biochemical basis of mode of action of various coronary vasodilators  Blood and urinary catecholamines in small-fordates babies	 24,595  	2,498 23,628 476 64
Pathology	National Heart Foundation N.H. & M.R.C.	Study of vascular smooth-muscle cells in culture Postgraduate scholarships	2,377	482 9,828
Psychiatry	N.H. & M.R.C. Roche Products Pty. Ltd. Wyeth Pharmaceuticals Pty. Ltd.	Depression and chronic pain General support for research in psychiatry General support for research in psychiatry	10,955 483	12,741 100 —
Surgery	Anti-Cancer Foundation Anti-Cancer Foundation N.H. & M.R.C. N.H. & M.R.C. National Heart Foundation	Readership in clinical oncology Grant for research Haemorrhage and the open-loop sinus baro- receptor reflex in the unanaesthetized rabbit Carotis baroreceptor reflexes in the conscious rabbit during exercise Baroflexes in hypovolaemia and shock states	19,817 ————————————————————————————————————	50,155 6,951 14,280 1,979

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
USIC				
	Australian Research Grants Committee	The life and work of Jean-Nicolas Bouilly (1763-1842)	4,435	7,491
	Australian Research Grants Committee	The music of German expressionism and its relation to Jugenstil	5,108	4,560
	Australia Council Australia Council	Studentships Programme in music—education for Aborigines	_	5,331
	Australia Council	in South Australia Drama Festival	51,092 —	75,576 3,670
	Premier's Department	Programme in music—education for Aborigines in South Australia	5,241	1,208
	Department of Aboriginal Affairs	Special work project—interpreter for Aboriginal music programme	963	1,276
	Premier's Department S.A. S.A. Churches of Christ Youth Choir	Composition fellowship Aboriginal music programme	14,988 585	15,758 125
	S.A. Premier's Department Aboriginal Arts Board The Myer Foundation	Evaluation of the history of the Centre for Aboriginal studies in music	10,490	15,447
CIENCE				
Biochemistry	N.H. & M.R.C.	A study of the cause of acute intermittent porphria with a view to rational therapy	16,120	32,872
-	N.H. & M.R.C. Australian Research Grants Committee	C. J. Martin travelling fellowship The virus-host relationship as studied with	· <del>-</del>	12,370
	Australian Research Grants Committee	temperate coliphage Vectorial transport of proteins across mem-	9,170	15,488
		branes with special interest in the messenger RNA for extracellular proteins	39,808	44,999
	Australian Research Grants Committee	The mechanism of action of pyruvate carboxylase in sheep	13,521	_
	Australian Research Grants Committee	Molecular mechanism in the control of keratin synthesis in the developing feather	8,081	
	Australian Research Grants Committee	Biochemistry of infection of the multi-component cucumber mosaic virus	12,542	11,899
	Australian Research Grants Committee	Nucleotide sequences and the co-ordinated control of specific eukaryotic genes	36,979	5,490

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
SCIENCE (Ctd) Biochemistry (Ctd)	Australian Research Grants Committee	Organisation and possible dosage compensation mechanism of ribosomal genes in marsupial		
	Australian Research Grants Committee	species Mechanism of exopenicillinase synthesis in	1,575	1,330
	Australian Research Grants Committee	staphylococcus aureus—is a leader peptide encoded in the exopenicillinase gene?  Comparative study of the kinetic properties of		1,500
	Australian Research Grants Committee	Comparative study of the kinetic properties of the biotin-containing carboxylases Organisation of avian keratin genes	_	12,413 14,219
	Australian Research Grants Committee	Evolutionary relationships in the structure of the biotin enzymes	=	7,962
	Australian Wool Corporation Australian Wool Corporation	The degree of heteorogeneity of keratin proteins Postgraduate scholarship	10,977	17,871 2,379
	Prime Minister's Department Reserve Bank—Rural Credits	Queen Elizabeth II Fellowships Virus biochemistry and molecular biology	3,750 150	20,008 570
	Development Fund Ian Potter Foundation	Fellowship	2,900 2,470	_
	Utah Foundation Department of Science Clive & Vera Ramaciotti Foundation	Enzyme secretion through cell membrane Queen Elizabeth II fellowship—Molloy Investigations into the mechanism of hair	5,155	21,221
	Clive & vera Ramaciotti Foundation	growth me mechanism of han		9,759
		· · ·		
Botany	Australian Research Grants Committee	Biostratigraphy and palaeobotany of three southern Australian tertiary megafossil floras	2,301	3,121
	Australian Research Grants Committee	An analysis of petrified coniferous remains from the Winton area of Queensland Limnology of Adelaide water supply reservoirs	1,439	4,272
	Australian Research Grants Committee Australian Research Grants Committee Australian Research Grants Committee	Cuticular analysis of eocene vegetation Amino acid sequences of plant proteins	919 8,279 1,825	1,537 4,455 8,829
	Australian Research Grants Committee	Links between metabolism and ion uptake in plant cells	1,400	7,212
	Australian Research Grants Committee	Ion movements and phosphorylation in plant mitochondria and chloroplasts	52,352	11,343

Faculty and Department	Source of Grant	Research Project	1978 \$	1979
SCIENCE (Ctd)	A			
Botany (Ctd	Australian Research Grants Committee	The comparative morphology, taxonomy and relationship of the marine algae of southern		
		Australia, (a) An algal flora (b) Critical survey		
1		of the <i>rhodophyta</i> (c) Completion of certain generic revisions	20,940	20,791
	State Electricity Commission of Victoria	Study of macroplant fossils in the Latrobe	,-	ĺ
. *	Wool Research Trust Fund	Valley—coal measures Postgraduate research scholarship	1,300	19,719
	S.A. Department of the Environment	Investigation of the factors controlling	-,	
	·	phytoplankton growth in selected South Australian water bodies	242	
	S.A. Department of the Environment Australian Water Resources Council	Arid zone research	_	2,202
	Australian water Resources Council	Natural populations of phytoplankton and inorganic particles	1,198	1,171
	Alcoa of Australia Ltd.	Study of fossils in brown coal deposits at	-,	ĺ
	Wool Research Trust Fund	Anglesea, Victoria Trend analysis in sheep station vegetation		16,483
,	Wool Research Trust Fund	productivity	2.416	7,103
Economic Geology	Australian Research Grants Committee	The grazing of vegetation in arid areas Primary and metamorphic features and	3,416	213
Leonomic Geology	Australian Research Grants Committee	alteration zones of deformed massive		
	Australian Research Grants Committee	sulphide deposits  Remote sensing of geological targets using	6,780	_
	Australian Research Grants Committee	Remote sensing of geological targets using vector analysis of LANDSAT band ratios		
	Esso Exploration (Aust.) Ltd.	based on airborne spectroradiometer data General support for research in Economic	14,143	30,685
		Geology	· ·	550
	Broken Hill Mining Managers' Assoc.	General support for research in Economic Geology	200	1,150
	India Australia Science Agreement	Grant in aid	200	2,308
Genetics	Australian Research Grants Committee	Genetics of somatic cell hybrids. II. Detailed		,
		cytogenetic and biochemical characterization of marsupial X eutherian hybrids	8,022	17,663
	Australian Research Grants Committee	Nature and structure of genes controlling	Í	,
		obligate parasitism	8,775	21,713

1182

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
SCIENCE (Ctd) Genetics (Ctd)	Australian Research Grants Committee Australian Research Grants Committee	Scientific correspondence of R. A. Fisher Genetics of the marsupial sminthopsis	_	20,563
	Australian Research Grants Committee	crassicaudata	_	7,591
Geology	Australian Research Grants Committee  Australian Research Grants Committee	Australian late precambrian glaciations in southern and central Australia Biostratigraphy and palaeontology across the	3,371	2,834
	Australian Research Grants Committee	precambrian-cambrian boundary in Australia Comparative investigation of the structure and	5,038	391
	Australian Research Grants Committee	magnetic fabrics of the basement inliers of the Adelaidean orogeny Nature of Archaean Crustal development: a	1,336	_
	Australian Research Grants Committee	geo-chemical-petrological investigation of silicic volcanic and plutonic complexes  Study of reactions involving alumino-silicates	15,339	19,665
		and related phases in pelitic metamorphites of the Adelaide and Olary regions	950	591
	Australian Research Grants Committee  Australian Research Grants Committee	Tectonic significance of the Halls Creek and King Leopold orogenic domains U/PB mineral dating of the Wooltana volcanics	2,093	8,566 11,231
	Australian Research Grants Committee	Geochemical and isotopic investigations of chilled margins of mafic intrusions	<del>-</del>	1,129
	Australian Research Grants Committee  Australian Research Grants Committee	Structure and petrology of Enderby Land, Australian Antarctic Territory Genesis of microcrystalline silica deposits in	_	240
	Australian Research Grants Committee	South Australia and adjacent Central Australia Geological investigations of the high grade	,-	1,598
		precambrian gneisses of the vestfold hills, Australian Antarctic Territory	_	223
	Australian Research Grants Committee	Nature of the Archaen Crust: granite-sediment relationships in the Yilgarn and Pilbara Greenstone belts of Western Australia	448	_
	Esso Exploration (Aust.) Ltd. Various Grantors	General support for research in Geology Support for Pre-Cambrian research	2,000	483

Faculty and Department	Source of Grant	Research Project	1978	1979 \$	1184
SCIENCE (Ctd) Human Physiology	N.H. & M.R.C. N.H. & M.R.C.	Extraneuronal uptake and inactivation of biogenic amines Angiotensin and brainstem vasomotor mechanisms	32,209 1,250	339	
	N.H. & M.R.C. N.H. & M.R.C.	Drug toxicology in isolated hepatocytes The role of the renin-angiotensin aldosterone	8,312	10,144	
·	Australian Kidney Foundation	system in foetal and neonatal life The role of the renin-angiotensin aldosterone system in foetal and neonatal life	52	18,271 3,177	
	Life Insurance Medical Research Fund	Angiotensin and brainstem vasomotor mechanisms	12,288	3,177	'n
	Australian Tobacco Foundation	The interaction of nicotine and renin- angiotensin system Evolution of the renin angiotensin aldo-	5,412	6,113	INANO
	Australian Kidney Foundation  National Heart Foundation  National Heart Foundation	sterone system Catecholamine metabolism in blood vessels Evolution of the renin angiotensin aldo-	697 —	9,244	FINANCIAL STATEMENTS
	Australian Research Grants Committee  Australian Neurological Foundation	sterone system Anatomical investigations of limbic connections with posterior olfactory cortex Grant for research	5,000	2,197 480	TEMENT
Mawson Institute	Australian Research Grants Committee	High latitude thermospheric winds, tempera-	-	100	S
Mawson insutute	Australian Research Grants Committee	tures and electric fields Upper atmosphere gravity waves and winds	26,733	10,514 1,576	
Microbiology	N.H. & M.R.C. N.H. & M.R.C.	Induction of immunity to a metazoan parasite Immunity to enteric infections	21,954 42,180	26,633	
	N.H. & M.R.C. N.H. & M.R.C.	Induction of immunity to tumours Immune control mechanisms at mucous	23,857	20,488	
	N.H. & M.R.C. Australian Research Grants Committee	surfaces Postgraduate research scholarships The biochemical steps in the immune	23,452	27,230 12,356	
	Australian Research Grants Committee	response of invertebrates	9,244	10,574	

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
SCIENCE (Ctd) Microbiology (Ctd)	Australian Research Grants Committee  Anti-Cancer Foundation Anti-Cancer Foundation Clive & Vera Ramaciotti Foundation Glaxo Laboratories World Health Organisation	Outer membrane protein function with emphasis on their role in recipient functions during conjugation Grant for research Research in leukemia Grant for research Grant for research Grant for mesearch Gut associated immunity to cholera	17,210 — 1,400 2,055	33,642 9,652 6,107 854 203
Organic Chemistry	Australian Research Grants Committee C.S.I.R.O. & I.C.I.	Reactions of organic compounds in close-packed monolayers Intramolecular radical reactions Gas chromatography/mass spectrometric studies Ion cyclotron resonance studies Electron impact studies Some aspects of cyclo-octatetraene chemistry The synthesis of terpenoids from eremophila species Synthesis of analogues of the alkaloid, bicuculline Synthesis of CNS active caprolactam derivatives NMR studies of reactions, interactions and structures in solution Synthetic routes to germacranes and germacranolides, Studies on model systems Structure determination and synthesis in the terpenoid field Oxidation of polyallylamines—Sirotherm	16,170 16,140 13,425 12,267 9,157 14,810 1,182 633 13,327 23,402	14,821 17,982 5,770 17,662 5,177 15,979 1,653 962 16,328 23,142 12,709
Physical & Inorganic Chemistry	Australian Research Grants Committee Australian Research Grants Committee	project  The role of complexing in polymerization and related reactions  New Group IB metal chemistry	9,138 4,614 18,016	2,969 13,672

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Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
SCIENCE (Ctd)				
Physical & Inorganic Chemistry (Ctd)	Australian Research Grants Committee Australian Research Grants Committee	Organometallic mass spectrometry Alkylation of dinitrogen complexes of	16,263	2,575
Chemistry (Ctd)		molybdenum and tungsten	1,790	_
	Australian Research Grants Committee Australian Research Grants Committee	Transport properties of gases and liquids The anti-tumour activity of platinum metal	29,955	29,096
		complexes	17,272	14,090
	Australian Research Grants Committee	The interaction of biological macromolecules, particularly DNA, polynucleotides and self	·	
		associating proteins, with organic and inorganic ions	5,398	1,879
	Australian Research Grants Committee	Mechanisms in crystal structure transformations	6,829	511
·	Australian Research Grants Committee	Interaction of DNA with reporter molecules and with platinum complexes	15,793	_
	Australian Research Grants Committee	Electron transfer reactions of CT excited states of transition metal complexes	17.489	19,945
	Australian Research Grants Committee	A comparative study of some metal complexes containing a single labile site with the enzyme carbonic anhydrase	3,578	622
	Australian Research Grants Committee	Isomeric hexamine-type cobalt (III) complexes with polyethyleneamine ligands: Specific	۶٫۶٫۲۵	022
		synthesis of isomers, and study of	4 2 4 1	0.40
	Australian Research Grants Committee	isomerisation reactions Fluoride complexes of organometallics	4,241 13,571	840 22,256
	Australian Research Grants Committee	A comparative study of the behaviour of block		22,200
	Australian Research Grants Committee	copolymers in solution by osmometry  Dependence of the bulk properties of	1,384	
	Austranan Research Grants Committee	Dependence of the bulk properties of polymers on their molecular properties		7,298
	Australian Research Grants Committee	Reactions of unsaturated molecules with	•	,
	Assetuation Decrease Committee	electron-rich transition metal complexes		10,880
	Australian Research Grants Committee Australian Research Grants Committee	Six co-ordinate complexes of vanadium Polyelectrolyte systems and the production of	<del></del>	1,953
		contractile work	_	7,937
	Australian Research Grants Committee Australian Research Grants Committee	Ion transport in mixed solvents at high pressure	193	· , —
	Australian Research Grants Committee	Thermodynamic properties or normal-alkane and cyclo-alkane mixtures	527	_

Faculty and Department	Source of Grant	Research Project	1978	1979 \$
SCIENCE (Ctd) Physical & Inorganic Chemistry (Ctd)	State Energy Research Advisory Committee	Alternative sources of energy	5,002	5,935
Chemistry (Ctd)	C.S.I.R.O. Australian Institute of Nuclear	Research grant Reactions of inorganic radicals in solution	598 1,298	493 —
	Science and Engineering Australian Institute of Nuclear Science and Engineering	Intra-molecular electron transfer processes in metal complexes		638
Physics	Australian Research Grants Committee Australian Research Grants Committee Australian Research Grants Committee Australian Research Grants Committee	Medium frequency ionospheric and meteor investigations using a large antenna array Photodisintegration of atmospheric gases Trace constituents of the lower atmosphere Remote sensing of winds and density fluctuations in the lower atmosphere using	16,374 6,115 6,446	16,468 2,347 2,880
		optical methods	5,503	4,919
	Australian Research Grants Committee  Australian Research Grants Committee Australian Research Grants Committee	Upper atmosphere winds from radio observations of meteors Cosmic ray anisotrophy at 10 <sup>16</sup> eV Cosmic ray intensity variations since the	4,689 718	3,621 3,202
	Australian Research Grants Committee Australian Research Grants Committee	pleistocene Thermoluminescent dating for archaeology Studies of cosmic ray air showers	23,693 10,710 20,623	21,564 4,003 14,754
	Australian Research Grants Committee	Seismicity and crustal structure in South Australia	5,041	5,335
	Australian Research Grants Committee  Australian Research Grants Committee	Microearthquake activity associated with geological faults Determination of the optical constants of thin	700	1,300
	Australian Research Grants Committee	films and bulk specimens of sem- conductors	2,783	1,928
	Australian Research Grants Committee	Observations of upper atmosphere winds at low latitudes and during a total eclipse of the sun	5,071	5,101
	Australian Research Grants Committee	The day to day variability of ionospheric currents	_	1,600
	Australian Research Grants Committee	Interplanetary scintillation of radio sources	95	_

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$	
CCIENCE (Ctd)					-
Physics (Ctd)	Australian Research Grants Committee	Atmospheric absorption of solar ultraviolet radiation	57		
	C.S.I.R.O.	New wide band method for the study of radio noise	2,706	_	
	C.S.I.R.O.	Remote sensing of the refractive index microstructure	3,248		
	C.S.I.R.O.	Study of the stability of ionospherically	•		
	C.S.I.R.O.	propogated transmissions Acoustic studies of atmospheric irregularities	459 3,087	_	
	Radio Research Board	Remote sensing of winds and density fluctuations in the lower atmosphere using			
	Australian Institute of Nuclear	optical methods  Low level uranium and thorium determin-	_	1,922	
	Science and Engineering	ation for archaemetry	10 (00	145	
	Department of National Resources S.A. Department of Mines and Energy	Operation of world wide seismograph system Seismic recording programme in the south	18,689	2,081	
	S.A. Department of Mines and Energy	east of South Australia Seismic recording in the Red Cliff area	13,540 13,520	19,605 2,310	
	U.S. Air Force	Photo-absorption in molecular oxygen	· —	9,247	
Zoology	Australian Research Grants Committee	Biochemistry of elasmobranch erythrocytes	1,019	444	
	Australian Research Grants Committee Australian Research Grants Committee	Cardiovascular physiology of snakes The evolution and phylogenetic relationships of	1,946	_	
	Australian Research Grants Committee	Australian frogs Ecology and life history of mussels in the River	1,776	2,550	
		Murray	1,113	287	
	Australian Research Grants Committee	Taxonomic and ecological studies of Australian freshwater amphipoda and atyidae	5,861	6,086	
	Australian Research Grants Committee	Ecology of the fan-shell pinna bicolor in South Australia	<u>-</u>	7,354	
	Australian Research Grants Committee Australian Research Grants Committee	Physiology of avian embryos Physiology of growth and moulting in nema-	_	10,954	
		todes, particularly parasitic species	4 201	6,068	
	Utah Foundation Australian Biological Resources Study	Survey of frogs of the north of Western Australia Taxonomic studies of the Australian anostraca	4,381 195	2,536	

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
SCIENCE (Ctd) Zoology (Ctd)	Australia Water Resources Council M. A. Ingram Trust Department of Environment	Ecology of fresh water mussels in the River Murray, S.A. Ecology of the Kangaroo Island wallaby Study of amphibians and macro-invertebrates in the Alligator River region	7,665 436 11,096	6,951 32 39,875
MISCELLANEOUS Electron Microscope Unit	Australian Research Grants Committee	The permeabilities of vessels and interstitial tissues	12,290	12,555
Road Accident Research Unit	Australian Department of Transport & Australian Road Research Board	In-depth study of accidents in Adelaide urban area	82,577	8,470
	Australian Department of Transport Australian Department of Transport Australian Department of Transport	Study of passenger car side impact protection Survey of drink driving in Adelaide to establish levels of accident risk related to blood alcohol content Comparison of data on police accident reports with in-depth study data	12,500	111,944
	State Road Safety Council State Road Safety Council	Evaluation of the automotive apprentices road safety programme Truck defensive driving course	10,701	15,030 646
Centre for Performing Arts	Premier's Department	Artist in residence	3,000	_
Continuing Education	Australian Department of Aboriginal Affairs Arts Advisory Council Commonwealth Department of Education	Publication of 'Alice in Wonderland' in Pitjantjatjara Summer Music School Audience survey of Radio 5UV	285 750	242 750 2,389
Centre for Physical Health	National Fitness Council of South Australia	Research project concerning aerobic fitness of school children	63	_

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$	1190
MISCELLANEOUS (Ctd) Environmental Studies	Australian Research Grants Committee	Submarine geology, sediment transport, hydrodynamics and quaternary history of the upper Spencer Gulf, South Australia	47,921	36,226	
Radio Station 5UV	Australian Department of Education Arts Advisory Council Arts Advisory Council Arts Advisory Council Arts Advisory Council Australia Council Australian Schools Commission Australian Schools Co	Radio innovation programme "So you want to put on a play" Schools programmes Band movement in South Australia Community arts programme—"Writer's Radio" Ethnic group programmes Jazz, rock and blues Jazz workshop Seminar on Australian literary magazine Literature Board—In Print Authors' proof/writers' radio Music therapy in action "A Class of Your Own"—project Social work for teachers Local ethnic music Matriculation music Socio linguistics Primary school radio Local fine music Audience survey of listeners to educational radio and evaluation of radio programmes South Australian writers on radio South Australian folk music Come Out 79 radio South Australian local fine music Young South Australian writers Over 60's radio	763 2,531 324  2,997 332 3,543  3,906 2,902  — 984 20 835 1,760 1,513 — 550  700 997 — — — — — — — — — \$2 335 096	1,091 1,097 1,101 145 — 6,338 400 1,977 30 80 202 6,528 2,500 — 2,844 1,000 966 125 2,000 7,264	FINANCIAL STATEMENTS
		<u> </u>	\$2,335,096	\$2,696,783	

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
WAITE INSTITUTE				
Agricultural	Australian Research Grants Committee	The role of boron in plant cells	950	-
Biochemistry	Australian Research Grants Committee	A study of enzymic processes of hydroxylation in plants	1,500	_
	Australian Research Grants Committee	Oxidase and reductase enzyme systems in nitri-	ŕ	
	Australian Research Grants Committee	fying bacteria  Metabolism of inorganic sulphur compounds in	4,221	_
	Australian Research Grants Committee	micro-organisms and plants Soil fractions with biological significance	6,268 1,700	_
	Australian Research Grants Committee	Endogenous acetate production and ketogenesis	1	1.500
	Australian Research Grants Committee	in sheep liver Cation dependent inositol polyphosphate	3,079	1,520
	Australian Research Grants Committee	conformations Regulation of the level of nitrate reductase in the	1,000	· —
		maize seedling zea mays	1,045	_
	Australian Research Grants Committee	Regulation of nitrate reduction by light, ATP and mitochondrial respiration in green plants		6,835
	Australian Research Grants Committee Reserve Bank—Rural Credits	Biochemistry of nitrification in nitrosomonas Interactions between nitrogen and phosphorus		16,893
	Development Fund	assimilation	11,894	12,751
	Reserve Bank—Rural Credits Development Fund	Nitrogen fixation in legume crops	_	200
	College of Agriculture, Malaya	Support of postgraduate student	· —	162
·	International Atomic Energy Agency Australian Wool Corporation	Research on bacterial leaching of uranium ores Interactions between nitrogen and phosphorus	_	1,253
		assimilation in the symbiotic association between legumes, rhizobium and mycor-		
		rhizal fungi	1,870	12,010
Agronomy	Australian Research Grants Committee	The application of the ideotype concept to a	,	
-	Australian Research Grants Committee	barley breeding programme  Metabolism of seleno methionine in sheep	7,121 2,000	8,156 2,489
	Australian Research Grants Committee	Field studies of photosynthesis and water use by	,	ے ب <del>نا</del> 07
	Australian Research Grants Committee	wheat and alternative grain crops Growth and maintenance respiration of subter-	600	_
	Adda And Grand Committee	ranean clover	3,700	2,415

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
AITE INSTITUTE				
(Ctd) Agronomy (Ctd)	Australian Research Grants Committee	Metabolism of threonine and isoleucine in sheep		2,510
	Australian Research Grants Committee	Genetic control of nutritional characters in wheat, rye and triticale		5,243
	Australian Research Grants Committee	Quantitative analysis of the genetic and environmental variation in populations of		5.005
	Barley Improvement Advisory	crop plants Research into barley	67,425	5,935 76,277
	Committee Reserve Bank—Rural Credits	Grain legumes	13	
	Development Fund Reserve Bank—Rural Credits Development Fund	Breeding of a barley ideotype	828	481
	Reserve Bank—Rural Credits Development Fund	Enzyme assays cereal grain quality improvement	369	
	Reserve Bank—Rural Credits Development Fund	Illustrations to revision of genus solanum	150	40
	Reserve Bank—Rural Credits Development Fund	Animal nutritional aspects of triticale grain	·	16,375
	Wheat Industry Research Council Wheat Industry Research Council Australian Meat Research Committee	Wheat improvement research Grant for interstate travel Studies into the summer nutrition of grazing	92,278	114,347 298
		cattle in the Mediterranean environment of South Australia	29,154	25,173
	Australian Meat Research Committee CIMMYT (International Maize and Wheat Improvement Centre)	Studies of post-partum oesterus in sheep Grants in aid	60	29,558
	Department of Science Victorian Department of Agriculture	Australian biological survey Grant in aid	5,935 84	14,062
	Food and Agricultural Organization of U.N.	Grant in aid	321	148
	C.S.I.R.O.	Extra mural grant for research chromosome transfer and wheat improvement	13,566	14,943
	International Atomic Energy Agency Department of Economic Development	Grant in aid Ridgway resilient cone thresher	23 3,714	89 12,351

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Faculty and Department	Source of Grant	Research Project	1978 \$	1979
WAITE INSTITUTE (Ctd) Agronomy (Ctd)	Chamber of Commerce and Industry S.A. Inc., Stock Feed	Triticale breeding research	. <del></del>	382
	Manufacturers' Assoc. of S.A. Department of Primary Industry Australian Wool Corporation	Cereal rye breeding Ecology and productivity of annual medic		11,215
	Australian Asian Universities Co-operation Scheme	pastures Plant improvement	_	971 485
Animal Physiology	Australian Research Grants Committee Australian Research Grants Committee	Carbohydrate metabolism in the epididymis Thyroid function in ruminants: relation to food	16,096	9,937
	Australian Research Grants Committee	intake and growth Avian ecophysiology and protein synthesis rates	11,173 9,381	10,736 12,821
	Australian Research Grants Committee  Australian Research Grants Committee	Defective control of cholesterol metabolism in cancerous and pre-cancerous liver Physiological relationship between plasma	10,011	10,060
	Australian Research Grants Committee	cholesterol and the composition and function of cellular and sub-cellular membranes  Mechanisms linking diverse settings of meta-		7,226
		bolic rate with water and electrolyte turnover in mammals	159	· —
	N.H. & M.R.C.  Australian Chicken Meat Research	Does an elevated level of blood cholesterol have a role in the management of leukemia?  Earthworms research	6,803	12,982
	Committee Department of the Environment, Housing and Community	Hairy Nosed wombat research	376	
	Development Australian Pig Industry Research Committee National Parks and Wildlife	Recovery of protein from animal waste by earthworms Wombat research	651 388	2,615 15
Entomology	Australian Research Grants Committee Australian Research Grants Committee	Diapause and development in <i>heliothis</i> Integrated control of insect pests of citrus and	10,532	12,029
	The state of the s	peaches	17,719	9,069
	1	1		

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
WAITE INSTITUTE	And all on Proceedings of the			
(Ctd) Entomology (Ctd)	Australian Research Grants Committee	The effect of physiological changes in stressed plants on populations of phytophagous		
<b>55</b> ( ,	Australian Research Grants Committee	insects Basic features on parasitism in nematodes;	7,373	8,469
		moulting and hatching in infective stages	11,559	12,331
	Australian Research Grants Committee	Identification and epizootiology of non- occluded viruses of insects	<u>·</u>	2,000
	Australian Wool Corporation	Wool scholarship	8,329	157
	Australian Wool Corporation	Feasibility study of the potential of microbial agents for the suppression of the sheep blowfly		4.078
	UTAH Grant for Bridging Finance	Readership in insect pathology	11,742	19,336
	C.A.P.E.S.	Grant in aid	779	125
	S.A. Department of Environment— Coast Protection Board	Yorke coast survey	1,345	5,225
	Department of Labour and Industry, State Unemployment Relief Scheme	Aphid monitoring	5,771	_
	Australian Meat Research Committee	Control of the pastures cockchafer aphodius tasmaniae		9,321
	South Australian Health Commission	Mosquito monitoring with regard to Australian		
	S.A. Domontmont of Assistations	encephalitis programme Grant in aid	4,207	6,276
	S.A. Department of Agriculture & Fisheries	Grant in aid	_	300
	Australian Asian Universities Co-operation Scheme	Support for study leave		3,500
	Co-operation Scheme Commonwealth Development Bank Commonwealth Extension Services	European foul brood disease		3,266
	Commonwealth Extension Services	The application of a computer model for red scale on citrus		258
	Department of Primary Industry—	Citrus red scale research	_	1,466
	Commonwealth Special Research Grant Reserve Bank—Rural Credits	Enimodial and of European faul based discount		ĺ
•	Development Fund	Epizootiology of European foul brood disease of honey bees		1,589
	George Aitken Pastoral Research Trust	Aphid migration research	3,383	· —
	George Aitken Pastoral Research Trust	Biological control of the sheep blowfly		4,358
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Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
WAITE INSTITUTE (Ctd) Entomology (Ctd)	Citrus Organization Committee International Congress of Apiculture Department of Labour and Industry, State Unemployment Relief Scheme Criminology Research Council Australian Honey Board	Red scale parasites Bee research Potato pest research  Forensic implications of the development of maggots in cadavers Epizootiology and management of European foul brood disease of honeybees in Australia	745 200 4,284 1,864 1,410	600 300 225 2,135 7,496
Plant Pathology	Australian Research Grants Committee Reserve Bank—Rural Credits Development Fund Reserve Bank—Rural Credits Development Fund Reserve Bank—Rural Credits Development Fund Wheat Industry Research Council Commonwealth Department of Health S.A. Department of Agriculture Food and Agricultural Organization of U.N. Food and Agricultural Organization of U.N. Bureau of Sugar Experiment Stations	Resistance of barley to leaf scald disease and pathogenicity of rhynchosporium secalis Molecular biology of plant viruses with multipartite RNA genomes Structure and composition of complex plant viruses The basis of pathogenicity in agrobacterium The structure, and location, in vivo, of plant virus RNA Biological control of soil borne plant pathogens  Development and testing prototype applicator for delivery protective aerosol mixtures to pruned apricot trees and grape vines Relationship of the Fiji disease virus with its leaf-hopper vector Wheat improvement research Quarantine investigations Research Cadang Cadang disease in coconuts  Grant in aid	1,000 9,761 14,159 21,662 1,070 13,843 791 16,514 389 1,967 8,155 568 586 785	1,200 7,547 14,581 21,035 1,200 12,988 159 7,314 126 4,336 10,033 638 14 —

Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
WAITE INSTITUTE (Ctd) Plant Pathology (Ctd)	C.S.I.R.O. Department of Primary Industry— Commonwealth Special Research Grant	Plant virus identification and assay Characterization of Australian plant viruses	_	19,516 3,857
Plant Physiology	Australian Research Grants Committee Australian Research Grants Committee Australian Research Grants Committee Australian Research Grants Committee Barley Improvement Advisory Committee Wheat Industry Research Council U.N.E.S.C.O. German Academic Student Exchange University of Adelaide and District Council of Berri Australian Development Assistance Bureau	Accumulation of solutes by grape pericarp cells Interaction between hormones and membrane components Physiology of water deficit and grain growth in wheat Aqueous interactions between plant hormones and phospholipid membrane components Research into barley Physiology of growth of cereals Grant in aid Grant in aid Artist in residence Grant in aid	8,001 15,439 ————————————————————————————————————	8,002 
Soil Science	Australian Research Grants Committee Australian Research Grants Committee Australian Research Grants Committee Wheat Industry Research Council Wheat Industry Research Council Wheat Industry Research Council International Soil Congress Victorian Department of Agriculture Oilseeds Research Committee	Surface properties of aluminous goethites Soil organic fractions with biological significance Manipulation of surface charges and soil structure Study of structure of seed beds for wheat Wheat improvement research Crack distributions in soil 9th International Soil Science Congress Grant in aid Tillage requirements for oilseed crops	17,465 22,058 — 380	1,160 2,000 8,134 9,898 59,281 8,955 24 10,071

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Faculty and Department	Source of Grant	Research Project	1978 \$	1979 \$
WAITE INSTITUTE (Ctd) Soil Science (Ctd)	Reserve Bank—Rural Credits Development Fund E. & W.S. Department  International Rice Research Institute Department of Primary Industry— Commonwealth Special Research Grant	Use of low grade phosphate rock and sulphuric acid to improve phosphate availability Effects of alum sludge on soil structure and fertility Grant in aid Clay movement in soils	- - -	16,320 5,599 808 400
Director	Australian Research Grants Committee Reserve Bank	Mechanism of soil swelling Research fellowship (Agriculture)	23,663 21,566	43,399
		Total — Waite Institute  Total — North Terrace	\$676,402 \$2,335,096 \$3,011,498	\$950,989 \$2,696,783 \$3,647,772

# THE UNIVERSITY STATEMENT OF SEPARATE

INCOME	s	\$
Anti-Cancer Foundation—	Ψ	. Ψ
Government of S.A.—Annual Grant		181,232 92,416

Income from Investments  Donations from the Public  Less: Transferred to Capital Account	121,350 (121,350)	99,568
Physics Section Income		832
DEFICIT for the year ended 31/12/79		53,830
		\$427,878

### OF ADELAIDE

### ACCOUNTS FOR THE YEAR 1979

### EXPENDITURE

A	\$
Anti-Cancer Foundation—	
Salaries and Insurance	188,495
Equipment	737
Physics Section	2,303
Library	3,497
Sundries	8,382
Patients' Care and Transport	3,757
Car Expenses.	302
Travelling Expenses.	220
Hostel Maintenance	566
Public Appeal	625
Public Education	7,410
Subscription to Australian Cancer Society	11,577
Computing	1,200
Computing Professional Education	758
Stationery	1,729
Provision for Long Service Leave	8,000
Mastectomy Rehabilitation Service.	1,011
Mobile Education Unit	4,062
Alison McLachlan Readership in Clinical Oncology	50,155
Grant to Flinders University.	74,066
Grant to University of Adelaide	19,074
Contingency Research Grants.	4,210
Grant to Flinders Medical Centre	6,000
Grant to South Australian Institute of Technology	2,000
Grant to Institute of Medical and Veterinary Science	2,000
Cytology Services—Net Loss	25,742
Cytology bot vices—I tot Loss	23,172
	\$427,878

# THE UNIVERSITY STATEMENT OF SEPARATE

LIABILITIES AND TRUSTS		e e
Anti-Cancer Foundation—		\$
Endowments Alison McLachlan Readership in Clinical Oncology Equipment Fund Cytology Service—Accumulated Balance Less loss for year	50,839 (25,742)	1,072,594 50,000 51,368
Peter Nelson Leukaemia Research Fund: Donation	242,083 20,924	25,097 263.007
Donations	472,750 (77,620)	,
Donation for Hostel		550 205,064 10,000 73,808

\$2,146,618

### OF ADELAIDE

### ACCOUNTS FOR THE YEAR 1979

ASSETS	\$
Anti-Cancer Foundation—	*
Northern Territory Inscribed Stock. Trustee Executor Agency—Melbourne. S.A. Gas Co. Bonds. Blue Metal Industries Ltd.—Debentures Telecom Australia—Debentures Finance Corporation of Australia—Debentures. Standard Chartered Aust. Ltd.—Deposit. Industrial Acceptance Corporation—Debentures. Executor Trustee—Deposit at Call Mutual Acceptance Ltd. Elders Trustee Common Fund No. 1 Standard Chartered Bank (Peter Nelson Leukaemia Fund) E.T.S.A. Debentures. Inscribed Stock. Funds held by Trustees General Investments Current Account Linear Accelerator Fire Protection System Hostel (Building and Furniture) Equipment Lombard Australia Ltd.—Debentures Additions to Hostel	
	\$2,146,618

# THE UNIVERSITY STATEMENT OF SEPARATE

INCOME	
Union Fees—	\$
Fees received for the year 1979	831,480
	\$831,480
Continuing Education (Excluding Radio Station 5UV)—	
Surplus at 1/1/79 brought forward Allocation by University: Special Grant 19,444 Staff Salaries 263,853	7,632
Fees: Tutorial Classes Schools and Special Programmes Extension Courses Publications	283,297 37,564 17,910 22,002 692
NOTE: The allocation by the University of \$283,297 in 1979 for staff salaries and running expenses is shown in the University Income and Expenditure Account under the headings "Departmental Salaries and Wages" \$263,853 and "Departmental Maintenance" \$19,444.	
DEFICIT as at 31/12/79	9,558
	\$378,655

### OF ADELAIDE

### ACCOUNTS FOR THE YEAR 1979

EXPENDITURE	\$	s
Union Fees—	Ф	Э
Paid to Union Council Refunded to Students		816,863 14,617 \$831,480
Continuing Education (Excluding Radio Station 5UV)		
Staff Salaries	32,343 9,325	263,853
•		41,668
Motor Vehicle Expenses  Motor Vehicle Depreciation	1,612 1,000	2,612
Travelling Expenses—Staff.  Library.		1,200 166
Administrative Expenses Schools and Special Programmes Tutorial Classes Extension Courses:		8,521 18,567 15,091
Lecturers' Fees Miscellaneous	5,326 11,184	16,510
Furniture and Equipment		10,467
		\$378,655

# THE UNIVERSITY STATEMENT OF SEPARATE

INCOME	o.
University Radio Station 5UV	\$
Allocated by University: Special Grant 10,563 Furniture 152	
Fees:       2,107         Extension Courses       2,043         Tape Correspondence       2,104         Subscriptions       9,587	
Studio Hire and Technical Services. Other Broadcast Users. Administration Charges—Outside Grants D.C.E. Seminar Production. Expanded Programme Guide. Radiothon Publications.	15,841 33,296 39,412 881 5,261 2,000 5,554 198
DEFICIT as at 31/12/79	26,322
NOTE: The allocation by the University of \$10,715 is shown in the University Income and Expenditure Account under the headings "Departmental Maintenance" \$10,563 and "Departmental Furniture" \$152.	
	\$139,480
BOARD OF PUBLIC EXAMINATIONS IN MUSIC—	
Fees received for year 1979 Other Income Joint Universities Operation—Surplus.	54,390 1,788 2,511
DEFICIT as at 31/12/79	1,805

\$60,494

#### OF ADELAIDE

#### ACCOUNTS FOR THE YEAR 1979

EXPENDITURE \$	\$
University Radio Station 5UV	Ą
Deficit at 1/1/79 brought forwardGeneral Courses:	5,921
Honoraria 534 Notes and Distribution 423	
Extension Courses: Honoraria	
Cassette Studies	177 42
Publications Subscription Costs Studio Hire and Technical Services Purchase Outside Programmes.	81 4,841 11,227 6
Advertising Office Staff Administration Expenses Administration	9,398 28,594 6,332
Studio Technical Maintenance Part-time Technical Staff Transmitter Technical Maintenance	6,758 8,720 1,522 3,467
Landline and Telephone Charges Payroll Tax and Insurance Part-time Operators and Producers Furniture	800 50,485
	\$139,480
BOARD OF PUBLIC EXAMINATIONS IN MUSIC—	
Deficit at 1/1/79 brought forward. Salaries, Payroll Tax and Insurance Printing and Stationery Travelling. Sundries Postages Examiners and Supervisors Scholarships and Prizes Administration Charges. Rent. Provision for Long Service leave	1,820 21,149 4,325 2,266 2,436 1,639 18,094 678 5,439 2,152 496
	\$60,494

The University of Adelaide

D. R. BEECHER, Bursar.

We report that we have audited the above statements of the Separate Accounts of The University of Adelaide for the year which ended 31 December 1979 and certify this statement to be a correct abstract of Income and Expenditure during this period.

TOUCHE ROSS & CO., Chartered Accountants. DELOITTE HASKINS & SELLS, Chartered Accountants.

Adelaide, 30 June, 1980.

### THE UNIVERSITY OF ADELAIDE



# THE WAITE AGRICULTURAL RESEARCH INSTITUTE

#### KEY TO PLAN

- 1. Laboratories and Administration.
- 2. Library.
- 3. Teaching Laboratories.
- 4. Glasshouses.
- 5. Workshop.
- 6. Urrbrae House.
- 7. Farm Buildings.
- 8. Glasshouses and Implement Sheds.
- 9. Controlled Environment Building.
- 10. Insectary.
- 11. Horticulture Laboratory.
- 12. Central Animal House.
- 13. Bee Research Laboratory.
- 14. Workshops.
- 15. Animal Physiology Laboratories.

