



MONASH REPORTER

An unofficial bulletin prepared for the information of members of staff of Monash University.

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HONOURS, AWARDS AND APPOINTMENTS TO MEMBERS OF STAFF

Professor E.C. Wood (Obstetrics and Gynaecology) has been elected a Fellow of the Royal College of Obstetricians and Gynaecologists.

VISITING SENIOR FELLOW IN ECONOMICS

Dr. I.G. Sharp, Assistant Secretary in charge of the Industrial Relations Research Branch of the Department of Labour and National Service, has accepted an appointment for approximately two months as Visiting Senior Fellow in the Department of Economics. He has been granted leave of absence from the Commonwealth Public Service to come to Monash.

Dr. Sharp graduated LL.B. from the University of Western Australia with first class honours and a Ph.D. from the University of London. He was awarded a Hackett Overseas Fellowship by the University of Western Australia in 1938 and received the London School of Economics award of the Hutchinson Silver Medal for the outstanding research thesis of 1940.

In 1950 he published a book entitled "Industrial Conciliation and Arbitration in Great Britain", and has contributed a number of articles to international journals on the topic of industrial relations.

Prior to going overseas, Dr. Sharp practised at the Western Australian bar. He is on the High Court list of barristers entitled to practise before that Court. He joined the Department of Labour and National Service within a few months of its establishment and has been associated with its development and with much of the planning of policies and structures especially in the industrial relations, international labour relations, and legal, matters.

Dr. Sharp has also been the Australian Government delegate at numerous International Labour Organization conferences, and since 1952 has led the Australian delegation to eight of those conferences. Dr. Sharp is married.

STAFF ARRIVALS

Mr. L.F. Brakel - Lecturer in the Indonesian and Malay Section of the Department of Modern Languages - graduated B.A. (Hons.) from the Leiden University in 1961 and M.A. in Indonesian Languages at the same University in 1965. His thesis was entitled "The Medieval Malay-Muslim Romance 'Hikayat Muhammad Hanafiyah'". Mr. Brakel is married.

STAFF ARRIVALS (cont.)

Dr. R.M. Cullen - Lecturer in Civil Engineering - graduated B.E. (Hons.) from the University of Canterbury, New Zealand, in 1962, and Ph.D. from the University of Nottingham this year. Before coming to Monash, Dr. Cullen was a senior research assistant at the University of Nottingham where his interest was in the field of land locomotion. Dr. Cullen is married with two children.

Mr. R.H. Dean - Administrative Officer, Buildings and Grounds Branch - graduated as Bachelor of Arts in the University of Melbourne in 1935 and obtained his Licentiate of Theology in 1939. In 1940 he enlisted in the A.I.F. and attained the rank of Captain. Subsequently he transferred to chaplaincy duties. In 1946 he completed the degree of Bachelor of Education at Melbourne University. From 1946 to 1949 he was on the staff of Scotch College, Melbourne, and since 1950 has been Principal of Scotch College, Launceston. Mr. Dean is married with four children.

Mr. W.F. Northam - Administrative Officer, Staff Branch - graduated as a Master of Arts from Clare College, Cambridge with Honours in Classics. From 1955 until 1964 he was employed by Thomas Borthwocks and Son. He migrated to Australia in 1964 and six months later joined the administrative staff of Queensland University. Mr. Northam is married with three children.

Mr. P. O'Brien - Schools Liaison Officer - graduated Bachelor of Arts from the University of Western Australia. From 1951 to 1953 he was in the employ of the New South Wales Public Works Department and Housing Commission. In 1953 he joined the Vocational Guidance Bureau of the New South Wales Department of Labour and Industry. Prior to taking up his appointment at Monash, Mr. O'Brien was officer in charge of the Vocational Guidance Bureau for the Southern Area of New South Wales, based in Wollongong. He has been a part-time tutor in Logic at the University of Western Australia, a part-time lecturer in English Literature at Sydney University Extension Department and a part-time lecturer in General Studies at the Wollongong College of the University of New South Wales. Mr. O'Brien is married.

Mr. G.L. Williamson - Secretary to the Faculty of Science - graduated as Bachelor of Science in the University of Adelaide. From 1957-58 he was an executive trainee with the Vacuum Oil Company. He joined the staff of the University of Adelaide in 1958 as Personal Assistant to the Registrar and later became Personal Assistant to the Vice-Chancellor. From 1962 until joining Monash he was on the administrative staff of the Institute of Advanced Studies at the Australian National University. Mr. Williamson is married.

Dr. W.R. Gibson - Senior Teaching Fellow in Physiology - graduated M.Sc. Agr from the University of Sydney in 1962 and Ph.D. from the University of Illinois in 1966. His research interests are in endocrinology and cellular physiology. Dr. Gibson is single.

Mr. T.O.L. Short - Administrative Assistant, Teaching Hospitals - graduated B.Com. from the University of Melbourne in 1964 and is an Associate of the Australian Society of Accountants. Before coming to Monash Mr. Short was employed as Victorian Accountant with a leading Australian paper supplier. Mr. Short will be responsible for the development of methods of recording student performance and co-ordinating work in connection with the teaching programme of the Departments of Surgery and Medicine. He is married with three children.

STAFF ARRIVALS (cont.)

Mr. S.C. Williams - Administrative Assistant to the Dean of the Faculty of Arts - graduated B.A. (Hons.) from the University of London. From 1963-65 he was an administrative assistant in the Court Department of the University of London, where he was responsible for the detailed administration of the University's estate property under the direct supervision of the Deputy Clerk of the Court. Before taking up his position at Monash Mr. Williams was an administrative officer in the Registrar's Department, University of Melbourne. Mr. Williams is married.

Mr. P.M. Wenderoth - Senior Teaching Fellow in Psychology - graduated B.A. (Hons.) from the University of Sydney in 1964. He is at present completing an M.A. thesis. His general research interest is in the fields of experimental psychology, particularly visual perception and optics. Before coming to Monash Mr. Wenderoth was a Commonwealth Research Student at the University of Sydney. Mr. Wenderoth is single.

Dr. Hironari Nakanishi - Research Fellow, Obstetrics and Gynaecology - graduated Doctor of Medicine from Fukushima Medical College in 1960 and Doctor of Medical Science at Kyoto University in 1965. In April of that year until coming to Monash Dr. Nakanishi was an assistant in the medical faculty of Kyoto University. Dr. Nakanishi is single.

CAN RELIGION BE TRUE OR FALSE?

A public lecture on this subject will be given by Professor Wilfred Cantwell Smith, the Charles Strong Memorial Lecturer for 1966, on Tuesday 28th June in lecture theatre H3 at 1.10 p.m.

Professor Cantwell Smith is Professor of World Religions at Harvard University and Director of that University's Centre for Study of World Religions. He graduated B.A. in Oriental Languages from the University of Toronto in 1938, M.A. in 1947 and Ph.D. in 1948 from Princeton University. He received his training in theology at Westminster College, Cambridge, and is an ordained minister of the United Church of Canada.

Professor Cantwell Smith lived for some time in India and Pakistan and has travelled widely and frequently throughout the Islamic world. He was a representative among the Muslims of the Canadian Overseas Missions Council from 1940-49, chiefly at Lahore, and taught Islamic history at Forman Christian College there. Professor Cantwell Smith was Birks Professor of Comparative Religion at McGill University from 1949-63, and was founder and director of that University's Institute of Islamic Studies.

He is the author of - 'The Meaning and End of Religion' (1963); 'The Faith of Other Men' (1963); 'Islam in Modern History' (1957, 1958, 1959); 'Modern Islam in India' (1943, 1947, 1949, 1964); and of numerous articles on comparative religion and on current Islamic affairs and history. Professor Cantwell Smith is the advisory editor of the 'Muslim World' and the 'Middle East Journal', vice-president of the American Society for the Study of Religion; and is a Fellow of the Royal Society of Canada.

RED CROSS BLOOD BANK

The Blood Bank will visit Monash on Monday 6th June to collect from staff volunteers. Appointments can be made at the Union Office or by telephoning extension 2108.

THE UNIVERSITY BOOKSHOP ADVISORY COMMITTEE

Since August 1965 the Monash University Bookshop has been operating in the area previously occupied by Collins Book Depot. The Manager, Mr. Ian Free, is an officer of the University appointed by the Council and responsible directly to the Council through the Comptroller. The Council also authorized the setting up of an Advisory Committee to advise the Manager on bookshop needs.

The present members of this Committee are:

Professor G.R. Manton, Dean of the Faculty of Arts
(Convenor)

Professor R.H. Day, Professor of Psychology

Dr. N.D. McLachlan, Senior Lecturer in History

Mr. T.B. Southwell, Chief Reference Officer,
University Library.

Mr. I. Wallace, representative of the S.R.C.

Mr. K.B. Stonier, Managing Director of Sun Books Ltd.

Mr. I. Free, Manager, Monash University Bookshop

The Committee meets regularly and discusses with the Manager the progress of the bookshop, but it has become clear that if it is to carry out satisfactorily its advisory functions it must maintain a closer contact with public opinion throughout the University.

Individual customers may often prefer to make their own suggestions or criticisms directly to the Manager or his staff. Other matters of wider concern could with advantage be discussed with the Manager by the Committee. In particular the Committee is anxious to support the Manager in his aim not merely to supply textbook needs for University subjects but to provide a wide range of books in every field. This involves a long-term policy which must continually be subject to review.

All suggestions and criticisms will be considered. They may be made either individually to any member of the Committee or addressed to the Committee C/- the Bookshop.

HOUSE FOR SALE

Walking distance from Monash. Weatherboard, in excellent condition. Three bedrooms, lounge, diningroom, kitchen, internal toilet. Built-in robes, wall-to-wall carpets, partly furnished. Large established garden, garage, made roads and paths. Close to shops, schools, transport. Price: \$10,000. Telephone 560-8829.

AMERICAN STUDIES FELLOWSHIPS

The American Council of Learned Societies has over the past few years been actively promoting Programmes of American Studies at the university level in Western Europe and more recently in Australia and New Zealand.

Commencing in 1967 American Studies Fellowships will be available to Scholars of Australia, Japan and New Zealand. These Fellowships are for Scholars of no more than 45 years of age who are teaching at the university level, and who wish to engage in advanced research in the United States on some aspect of the history, culture, or civilization of that country.

The Fellowships are for a minimum period of nine months and may be extended to a maximum period of two years. They provide for all expenses.

AMERICAN STUDIES FELLOWSHIPS (cont.)

Selection of candidates for these Fellowships will be on a competitive basis. Scholars interested in Fellowships to be initiated in 1967 should write to:

The American Studies Programme,
American Council of Learned Societies,
345 East 46th Street,
NEW YORK. N.Y. 10017, U.S.A. (before 1st July).

Announcement of awards will be made no later than January, 1967.

THE ROYAL SOCIETY AND NUFFIELD FOUNDATION COMMONWEALTH BURSARIES SCHEME

The objective of the scheme is to provide facilities for increasing the efficiency of scientists of proven ability by enabling them to pursue research, learn techniques or follow other forms of study in natural science where either or both the physical and personal environment overseas in a Commonwealth country is peculiarly favourable.

Normally it will be assumed that applicants will be holders of salaried posts to which they will return and that they will be in receipt of salary during absence. The bursaries will assist by providing for the cost of travel and sufficient maintenance for the applicant only. However, the amount of each bursary will vary with the circumstances of individual applicants and with the living costs in different countries but the average maintenance allowance, exclusive of cost of travel, will be at the rate of between about £200 and £600 (sterling) a year. Bursaries will be tenable usually for periods of two to twelve months.

Bursars will not be permitted to prepare specifically for, or to take examinations for, higher degrees or diplomas.

Further information may be obtained from the Scholarships Officer, Mr. Warren Spence, extension 2009.

CONSIDER

Serious consideration is today being given to a world-wide problem other than that of war; the problem of food shortages.

Australians may be interested to know that when during the depression of the 1930's Dr. John Boyd Orr of Aberdeen called world attention to "food shortages and the need for nutrition" his call reached Geneva and he received in Aberdeen a telegram:

"Be of good cheer, Brother Orr, for we have this day lighted a candle, as by God's grace, shall never be put out".

- it was signed: Stanley Bruce and Frank MacDougall.

Bruce was then Australian delegate to the League of Nations and MacDougall was economic adviser to the Australian Government.

Thirty years elapsed during which time World War II was waged with its scorched earth policies and enormous movements of displaced persons; and there emerged a great alliance to combat hunger, disease, inequality and illiteracy which found its embodiment in the United Nations with its General Assembly of 114 nations. The U.N. with its Specialized Agencies many of which are actively involved in the elimination from the world of hunger and kindred ills: I.L.O., W.H.O., UNICEF, UNESCO, I.B.R.D., to mention but a few.

CONSIDER (cont.)

It was in May 1943 that a draft constitution was drawn up for an international Food and Agriculture Organization - F.A.O. Its present Director-General Dr. B.R. Sen, launched in 1960 the Freedom from Hunger Campaign and in so doing called world attention to the fact that two-thirds of the world's 3,000 million people are suffering from malnutrition or sheer starvation. Bearing meanwhile the consequent ills of tuberculosis, yaws, blindness, kwashiokor, ulcers, epilepsy - with a life expectancy of a mere thirty years they not only are ill from lack of proper food supplies but are poor, illiterate and without hope.

The urgency of the problem may be seen in that by the year 2,000 the world's population is expected to reach 6,000 million.

The solution lies in education with a capital E; better seed, fertilization, better cattle, irrigation, eradication of pests, the farming of the ocean etc., and, parallel with these, the means with which to purchase.

It is necessary that developing countries be aided in attaining an economic pattern suited to their needs; this is not without complications. But to this end the years 1960-70 have been declared the Decade of Development. Ninety nations are participating in the campaign to overcome the widening gap between the "Haves" and the "Have-nots" and within each participant nation numerous groups are actively supporting this campaign.

Here in Victoria, Community Aid Abroad, Overseas Service Bureau, World University Service and like bodies are giving essential immediate aid whilst the Freedom from Hunger Campaign endeavours to support the establishment of sizeable projects which will be of lasting and extensive benefit. In the process there is much interchange of personnel and the element of self-help is regarded as of the utmost importance.

The candle still burns seemingly as a symbol of need and whilst that condition lasts, there exists a challenge to thinking people.

As Berdiaeff said: "Bread for oneself is a material concern; bread for others a spiritual concern".

The above note was received from the Chairman, Schools and University Committees of the Freedom from Hunger Campaign.

STAFF DRAMA GROUP

"An Escape of Moral Sewage Gas".

"It was like a visit to the Morgue...There they all lay on their copper couches, fronting us, and waiting to be owned... There they all were, false men, wicked women, deceitful friends, sensualists, egotists, piled up in a heap behind this screen of glass, which we were thankful for... What a horrible story! What a hideous play!" In spite of this review by Clement Scott of its first London production, 'Hedda Gabler' has survived to become recognized as one of Ibsen's masterpieces, and Hedda herself to be ranked with the great heroines of Greek and Elizabethan tragedy. This classic play will be the next production of the Staff Drama Group.

The cast for this production will be as follows: Jørgen Tesman - Sorb Bastomsky; Hedda Tesman - Patricia O'Sullivan; Juliane Tesman - Audrey Matheson; Mrs. Elvsted - Pauline Kirk; Judge Brack - Bruce Knox; Ejlert Løvborg - Dennis Davison; Berte - still to be cast. 'Hedda Gabler' is to be directed by Michael Schneider. It will be performed in the Union Hall on 12th - 16th July.

The next informal play reading will take place at the home of Brian and Laura Brogan at "Miyako", Williams Road, Olinda, on Monday, 6th June, at 8 p.m. Copies of a Pirandello play will be available upon arrival.

DEPARTMENTAL NEWS OF GENERAL INTEREST

CHEMISTRY

On Tuesday 10th May, Professor E. Wenkert visited the Department and gave a seminar on "Some Aspects of the Synthesis of Terpenes". Professor Wenkert is an organic chemist from the University of Indiana, U.S.A., and his visit to Australia was made possible by the Australian Academy of Science.

ELECTRICAL ENGINEERING

Mr. Graham D. Clifford, Secretary of the Institution of Electronics and Radio Engineers, London and Mr. R.J. Boyle, Deputy President of the Institution of Radio and Electronics Engineers, Australia, visited the Department during April.

LAW

Professor Arthur Rogerson, Dean of the Faculty of Law, University of Adelaide, visited the Law School at the invitation of the Dean, on Thursday 5th and Friday 6th May. The object of his visit was two-fold. He had valuable discussions with the Dean and members of Staff regarding Law School Building plans in the light of his own experiences in the course of planning and designing the new Law School building in the University of Adelaide. He also accepted an invitation to address Law students on the topic of "Crime and International Law - The Eichmann Case", a lecture of particular interest to students studying the subjects of Criminal Law and International Law. In addition he took part in two seminars on aspects of Property Law, with particular respect to problems in the Law relating to the Sale of Goods.

On Friday 22nd April, The Honourable Mr. Justice R.A. Smithers visited the Law School as the guest of the Dean, Sub-Dean and Professors in Law. Mr. Justice Smithers, a Federal Judge, at present holds appointments as Justice of the Supreme Court of the Australian Capital Territory and Judge of the Commonwealth Industrial Court. The main object of his visit was to discuss problems relating to the administration of justice in Papua and New Guinea with the Sub-Dean, Mr. P.G. Nash, in view of the recent appointment of Mr. Nash as the foundation Professor of Law in the new University of Papua and New Guinea. Mr. Justice Smithers was formerly a judge of the Supreme Court of Papua and New Guinea.

DEPARTMENTAL NEWS (cont.)

MECHANICAL ENGINEERING

Professor R.G. Barden was invited to give the R.O. Smees Memorial address at the Building Science Forum of Australia conference 'Noise in Buildings' held in Sydney on 17th and 18th May. The title of his address was 'Living with Sound'.

FACULTY OF MEDICINE

Recent visitors to the Faculty were Professor A.L. Chute, Professor of Paediatrics, Toronto University; Professor S. Alstead, C.B.E., M.D., Regius Professor of Materia Medica, University of Glasgow; Mr. C. Fleming, F.R.C.S., Dean University College Hospital, Medical School, London; Dr. M.E. Krahl, Professor of Physiology, University of Chicago, U.S.A.

PHYSIOLOGY

Dr. Magda Weiss has left to attend the Second International Congress on Hormonal Steroids, which is being held in Milan from May 23rd. She will present a paper on 'Adrenal Function in Australian Monotremes and Marsupials', by M. Weiss and I McDonald. While overseas she will visit laboratories in the U.S.A. Dr. Weiss holds a grant from the Wellcome Trust and the Winter Bequest.

Dr. Mollie Holman is to visit Stanford University in July. She will collaborate with members of the Department of Surgery in experiments on the gastro-intestinal tract. During her absence of approximately two months she will also visit laboratories in Canada and Japan.

STAFF BRIDGE

Bridge is now played in the Faculty Club at 7.45 p.m. on alternate Mondays as from Monday, June 13th. Please be punctual and bring your partner and/or antagonist.

GIFTS

A photograph of the Ceremony at Bertangles Chateau at which a knighthood was conferred on Sir John Monash, and a letter signed by Sir John Monash about this Ceremony, from Mr. F. Latiner of East Brighton.

A grant of \$1,500 has been received from Merck Sharp and Dohme to the Department of Biochemistry as a contribution towards Dr. C. Cori's expenses.

A grant of \$1,600 has been received by Mr. G. Troup, Department of Physics, from the Australian Institute of Nuclear Science and Engineering for 'ESR Studies of Radiation Damage'.

Copy for the July edition of the Reporter closes on Monday, 20th June.

The following answers to questions upon notice were circulated in the House of Representatives on the 19th April, 1966.

Education

(Question No. 1344)

Mr. W.G. Hayden, Labour, Queensland, asked the Prime Minister upon notice -

1. Is he able to supply the following statistics with respect to education in England, Russia, the United States of America, Japan, Italy and Australia, respectively:-

- (a) What percentage of the gross national product is spent on education by (i) Governments and (ii) private schools?
- (b) What is the wage for fully qualified teachers in their first teaching year, and how does this in each case compare with the basic wage, if such exists?
- (c) What percentage of the population is receiving education, including university education, at the various age levels?
- (d) What is the total number of graduates each year, and what is the percentage of science graduates in each case?

2. What sum is expended annually by the Commonwealth Government on education?

3. What sum is expended annually on education in each State by (a) the State Government and (b) private education institutions?

Mr. Harold Holt - The answers to the honorable member's questions are as follows:-

1. International comparisons on the lines suggested by the honorable member are subject to limitations because of restricted availability of statistics, differences in the definitions according to which statistics are compiled and significant variations in the economic, social and educational structures of countries.

- (a) Some data on Australian expenditure on education can be obtained from the Commonwealth Statistician's publications "Australian National Accounts" and "Quarterly Bulletins of Building Statistics". as follows:-

AUSTRALIA - ESTIMATES OF EXPENDITURE ON EDUCATION IN RELATION TO GROSS NATIONAL PRODUCT*

Year	Public Authority Expenditure on Education as per cent. of Gross National Product†	Private Expenditure on Education as per cent. of Gross National Product‡	Total Expenditure on Education as per cent. of Gross National Product
1958-59	2.50	0.52	3.02
1959-60	2.59	0.52	3.11
1960-61	2.33	0.54	3.37

Year	Public Authority Expenditure on Education as per cent. of Gross National Product ⁺	Private Expenditure on Education as per cent. of Gross National Product [≠]	Total Expenditure on Education as per cent. of Gross National Product
1961-62	3.08	0.59	3.67
1962-63	3.08	0.61	3.69
1963-64	3.15	0.61	3.76

* For details of the items included and excluded from the various classes of expenditure, see Commonwealth Bureau of Census and Statistics - Australian National Accounts, National Income and Expenditure - 1948-49 to 1963-64.

+ Consists of (a) net current expenditure on goods and services, (b) public expenditure on fixed capital equipment, and (c) cash benefits to persons; paid by any public authority or enterprise and allocated to the function "education".

≠ Consists of personal consumption expenditure (mainly fees) allocated to "education". The figures do not include expenditure on books, school transport, and the like. Estimates of private expenditure on fixed capital equipment for education are not available, but the figures shown include estimates of the value of private educational buildings completed during each year. The fee component of scholarships has not been deducted but would be less than 0.01 per cent. of Gross National Product.

Information available for oversea countries is as follows:-

I. ESTIMATES OF TOTAL EXPENDITURE ON EDUCATION IN RELATION TO GROSS NATIONAL PRODUCT - SELECTED OVERSEA COUNTRIES .

Country	Year	Total Expenditure on Education as per cent. of Gross National Product
United Kingdom	1957	3.67
Soviet Union	1958	3.74
United States	1958	4.53
Italy	1957	3.42

Source: I.Svennilson, F. Edding, and L. Elvin - "Policy Conference on Economic Growth and Investment in Education", Washington, 16th-20th October, 1961.

II. ESTIMATES OF PUBLIC EXPENDITURE ON EDUCATION IN RELATION TO GROSS NATIONAL PRODUCT - SELECTED OVERSEA COUNTRIES

Country	Year	Public Expenditure as per cent. of Gross National Product
Great Britain	1959-60	4.0
Great Britain	1962-63	4.8
Soviet Union	1959-60	4.4

Source: "Committee on Higher Education (Great Britain) - Appendix 5 to the Report of the Committee appointed by the Prime Minister under the Chairmanship of Lord Robbins, 1961-63, Higher Education in other Countries."

(b) Information is not available about wages for fully qualified teachers in their first teaching year in the countries listed, other than Australia.

(c) The following table shows, for selected countries, the percentage of the population receiving education at various age levels:-

Country	Year	Age Groups					
		5-9	10-14	5-14	15-19	20-24	5-24
		%	%	%	%	%	%
Australia*	1957	95.09	97.09	96.02	n.a.	n.a.	n.a.
	1958	96.24	97.15	96.67	n.a.	n.a.	n.a.
	1959	96.84	97.65	97.23	n.a.	n.a.	n.a.
	1960	97.07	98.01	97.53	n.a.	n.a.	n.a.
	1961	96.34	97.32	96.83	24.79	1.57	61.93
	1962	96.64	97.86	97.23	28.00	1.67	62.02
	1963	96.98	98.22	97.58	28.28	1.81	61.79
	1964	95.86	98.80	97.29	28.90	1.95	61.28
United Kingdom+	1957	n.a.	n.a.	98.80	17.60	3.90	59.60
Soviet Union+	1958	n.a.	n.a.	71.5	48.6	8.20	49.10
United States+	1958	n.a.	n.a.	89.90	66.20	12.00	69.90
Italy+	1957	n.a.	n.a.	73.80	15.70	3.90	42.50
Japan		No comparable information available					

* The figures for Australia were supplied by the Commonwealth Statistician. They include full-time school and university enrolments only.

+ These figures were estimated by I. Svehnilson, F. Edding and L. Elvin, op. cit. They relate as far as possible to all students receiving full-time education. In the Soviet Union, evening and correspondence courses have been included.

(d) The numbers of graduates from Australian universities in each year 1958 to 1964 are shown in the following table:-

AUSTRALIAN UNIVERSITIES: BACHELOR DEGREES CONFERRED,
1958 TO 1964 *

Year+	All Degrees Conferred	Science Degrees [‡] Conferred as per cent. of all Degrees Conferred
	Number	
1958	3,382	17.24
1959	3,615	19.17
1960	4,184	20.63
1961	4,143	21.82
1962	5,391	20.63
1963	6,131	21.43
1964	6,960	21.15

* No adjustment is made where a person obtains two degrees in the same year or a second bachelor degree in a different year. Figures exclude diploma, certificates, and higher degrees.

+ Figures for 1962 and later years refer to degrees conferred during the twelve months ended July. Figures for 1961 and previous years refer to degrees conferred during the calendar year. Bachelor degrees conferred during the five months ended December 1961, which are included in both the 1961 and 1962 figures were 552 degrees, including 46 degrees (science).

‡ Includes Bachelor of Science, Bachelor of Science (General Science), Bachelor of Applied Science, Bachelor of Science (Applied) and Bachelor of Science (Technical).

Comparable information for oversea countries is not available. However, the "1963 UNESCO Statistical Yearbook" shows the following figures:-

SCIENCE GRADUATES* FROM TERTIARY INSTITUTIONS AS A PERCENTAGE OF TOTAL GRADUATES FROM SUCH INSTITUTIONS+ - SELECTED OVERSEA COUNTRIES

Country	Year	Per cent.	Country	Year	Per cent.
United Kingdom	1957	13.57	Italy	1957	12.56
	1958	13.74		1958	12.16
	1959	13.74		1959	11.82
	1960	13.97		1960	12.25
United States	1957	10.99	Japan	1957	2.08
	1958	11.49		1958	2.28
	1959	12.11		1959	2.45
	1960	12.41		1960	2.48

* "Science" refers to the natural sciences which includes the following fields of study:- astronomy, bacteriology, botany, chemistry, entomology, geophysics, mathematics, mineralogy, physics, zoology, etc.

+ These figures relate to all kinds of degrees and diplomas at third level education - pre-university, university, post-graduate and non-university.

2. Commonwealth expenditure on education is estimated as follows:-

TOTAL NET OUTLAY OF THE COMMONWEALTH GOVERNMENT ON EDUCATION*
(\$ million)

1960-61	1961-62	1962-63	1963-64	1964-65
40	52	58	66	102

* The figures consist of the following items (any receipts have been deducted): expenditure on current goods and services (e.g., Office of Education, current grants to the Australian National University and current expenditure on primary, secondary, and technical education in the Australian Capital Territory and the Northern Territory), cash benefits to persons (e.g., scholarships), grants to other countries, current and capital grants to the States for secondary, technical and university education, capital grants for science laboratories at non-government schools, expenditure on new capital assets (e.g., school buildings in the Australian Capital Territory), and capital grants to the Australian National University.

Source: Commonwealth Bureau of Census and Statistics: Commonwealth Finance, 1964-65, Bulletin No.3.

3. (a) The Commonwealth Statistician has supplied the following information:-

STATE GOVERNMENT EXPENDITURE ON EDUCATION. 1959-60 TO 1963-64*
(\$'000)

Year	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total
1959-60	128,008	92,020	35,966	32,140	23,840	13,832	325,806
1960-61	143,174	104,226	40,456	37,242	27,670	15,176	367,944
1961-62	144,372	115,750	42,292	43,662	30,256	16,103	402,440
1962-63	161,728	126,456	48,096	46,722	31,770	17,450	432,222
1963-64	180,402	141,728	54,472	49,216	35,128	19,546	480,492

* These are payments from Consolidated Revenue, Special Funds and Loan Funds towards current and capital items for education departments, schools, universities, technical colleges, agricultural colleges, and deaf, dumb and blind education. Expenditure on libraries, museums, &c., is excluded.

(b) The Commonwealth Statistician cannot supply this information. Independent schools cater for approximately 25 per cent. of the total school population.