

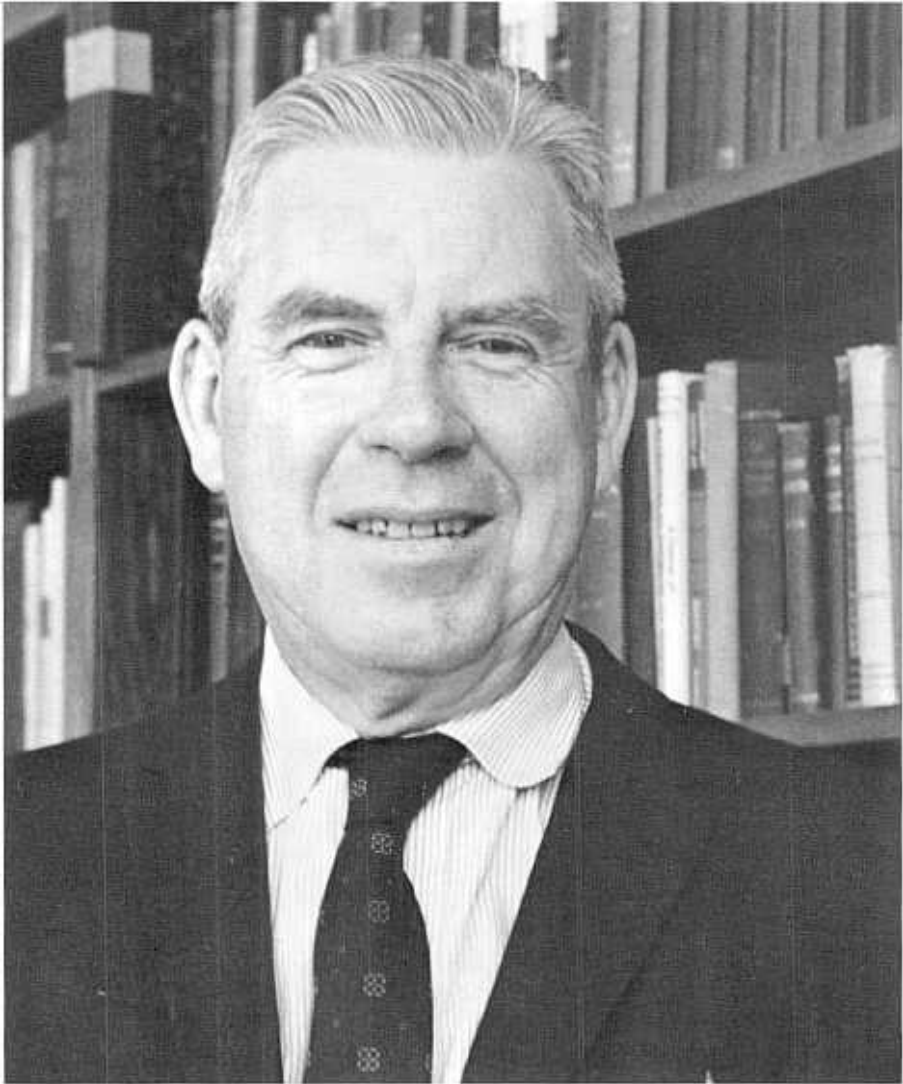
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# THE PRESIDENT'S REPORT

1968-69

The report of  
Dr. Walter H. Gage  
to the Senate and  
Board of Governors of  
the University of British Columbia  
for the period  
September 1, 1968 to August 31, 1969

vancouver, canada



Jennings

**PRESIDENT WALTER H. GAGE**

## FOREWORD

The Board of Governors,  
The University of British Columbia.

Mr. Chancellor and Gentlemen:

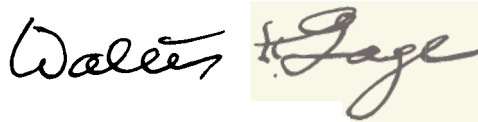
The following report briefly reviews the progress and problems of the University of British Columbia during the academic year 1968–69.

The academic year under review was in many ways critical as the result of a substantial enrolment increase, inadequate capital funds and a renewed effort by the University community to come to grips with a multitude of University problems.

The process of self-examination which was initiated in the year under review will, I expect, continue for some time to come. The many studies which have been set in motion are concerned with improving educational opportunities and standards at UBC.

Despite the many difficulties recorded in the ensuing report, the University maintained the high standard of teaching and research which has earned for it an enviable reputation among institutions of higher education in Canada.

Yours sincerely,

A handwritten signature in dark ink, reading "Walter H. Gage". The signature is written in a cursive style. The word "Walter" is on the left, and "H. Gage" is on the right, with a small "H." between them. The signature is set against a light yellow rectangular background.

Walter H. Gage.

# A YEAR OF SELF EXAMINATION

The academic year which began September 1, 1968, and ended August 31, 1969, was in some ways one of the most critical in the University's 54 years of existence. Most of the major problems which beset higher education in B.C.—the shortage of funds for operating and capital purposes, the increasing number of students who are demanding entrance to post-secondary institutions and the question of the role and function of the University in contemporary society—were minutely examined, vigorously debated and, hopefully, brought more sharply into focus. There was, in short, an explosion of ideas about a multitude of University problems and this explosion will ensure that the debate will continue for some years to come.

There is no question in my mind but that this examination of University activity is a good thing. Every institution—universities included—must be continuously involved in a process of self-examination to ensure that it is meeting the needs of those whom it has been established to serve. The 1968–69 academic year could not be described as a year of rapid change in the University, but it was a year in which a great many studies were set in motion to examine various



problems. The recommendations made by the various committees examining these problems could substantially alter the nature of the University in the years ahead. The overriding concern of those who are taking part in these investigations, however, is the continued improvement of educational opportunities and standards at the University of British Columbia.

In the first section of this report I should like to deal with the continuing problems experienced by the Board of Governors as a result of the shortage of operating and capital funds.

The operating funds shortage was particularly critical because of an enrolment increase of ten per cent, or an additional 2,000 students. This increase meant that an even greater strain was put on already hard-pressed University facilities, a strain that endangered the quality of education at UBC. The University is caught between two strong and conflicting pressures: on the one hand, the increasing demand for higher education and, on the other, demands for economy made by governments and sanctioned by public opinion.

Despite the fact that UBC provides most of the costly facilities for graduate and professional training in the province, the University's grant per Full-Time Equivalent student\* in 1968-69 was significantly lower than the grants to the other two provincially supported universities.

Provincial grants, of course, are not the only source of operating revenue for the universities. There are also such things as student fees, revenues from campus services, research grants and gifts and endowment income. These outside sources are taken into account in Table One which shows the total amount of operating funds that 15

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\*The term "Full-Time Equivalent student" is used to compensate for the differences between term and semester systems and day and night programs.



TABLE ONE

Photo by George Allen

Canadian universities were able to spend on behalf of their students. This table shows that in the year ended 1968, including research funds, UBC expenditures were only \$2,714 per student, and, including research costs, \$2,218 per student. It is significant that UBC ranked twelfth out of fifteen Canadian universities in terms of non-research expenditures and thirteenth out of fifteen when expenditures with assisted research are taken into account.

No university can provide quality education unless it has adequate buildings to accommodate students and faculty members. Despite some notable progress in recent years the Board of Governors has been extremely hard-pressed to find funds to proceed with many priority projects. As a result, the University still utilizes a large number of World War II army huts as offices and classrooms and is unable to provide adequate study and library space for a student body and faculty making increased use of library materials.

From its inception in 1915 to March 31, 1969, the total investment in UBC's physical plant, as calculated by the University, was \$106,331,524. Of that total, less than 50 per cent—\$52,641,040—came from the provincial government. The remainder—\$53,690,484—came from students, alumni and the general public or from the Canada Council or other federal government agencies. The sources of capital funds for construction at UBC are shown in Table Two.

During the 1968–69 academic year the University reached the end of a five-year capital development program which began in 1964 with the 3 Universities Capital Fund, in which UBC participated with Simon Fraser University and the University of Victoria. In those five years UBC expended \$71,688,030 on new buildings and facilities, a sum which represents more than two-thirds of the total investment in buildings since UBC moved to its present site in 1925.



# source of funds for capital construction at u.b.c. from 1915 to March 31, 1969

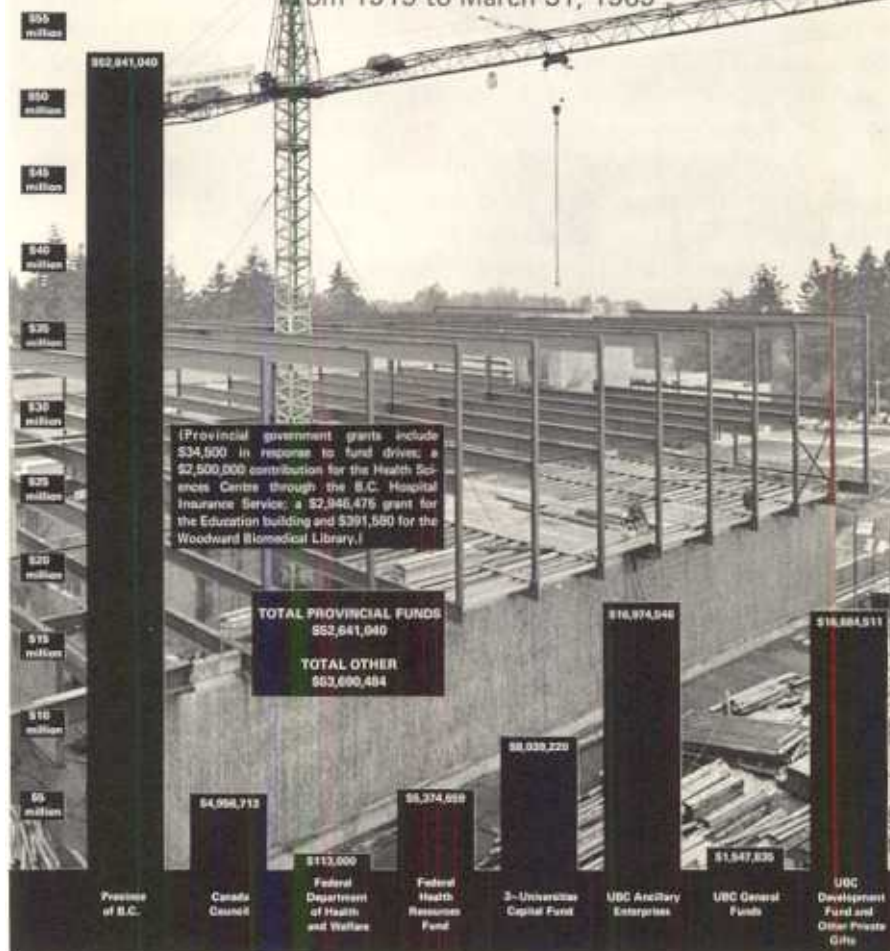


TABLE TWO

Photo by B.C. Jennings

It should be noted also that more than half the money invested in this five-year program—\$37,010,377—was the result of special financing entirely outside regular provincial government capital grants and fund drives. In some cases, the funds for these special projects were borrowed (to construct residences, for example). The Alma Mater Society contributed \$3,400,000 toward construction of the new Student Union Building and a generous gift of \$4,100,000 from the late Mr. P.A. Woodward enabled the University not only to make an addition to the P.A. Woodward Biomedical Library, but also to continue planning for an interdisciplinary Instructional Resources Center as part of the developing Health Sciences Center on Wesbrook Crescent south of University Boulevard. Details of the sources of funds for this five-year program are given in Table Three.

During 1968–69 B.C.'s three public universities received provincial capital grants of \$12,000,000 to pay for new and on-going projects. Of this total UBC received \$5,000,000 for general projects (and a separate grant of \$1,220,477, not included in the \$12,000,000 total, for the Health Sciences Center.) By way of comparison, in the same year the Province of Alberta contributed \$41,000,000 for new construction at its public universities and the Province of Ontario \$125,000,000. Table Four compares provincial capital grants in B.C., Alberta and Ontario in 1967–68 and 1968–69.

It should be evident from the foregoing that unless UBC's revenues increase substantially in the years ahead, the expected waves of students will not be adequately accommodated. Otherwise, classes will inevitably grow larger, the University will become more impersonal, students more alienated and, worst of all, the quality of the educational experience which can be offered to students will decline.

# source of funds for u.b.c.'s five-year capital program

April 1, 1964 to March 31, 1969

	CAPITAL FUND GOALS <u>1964-1969</u>	ACTUAL RECEIPTS FROM <u>ALL SOURCES</u>
Province of British Columbia		
Capital grant 1964-69	\$18,000,000	\$19,000,000
Capital grant 1969-70		1,892,772
Fisheries Storage Building		8,000
B.C. Hospital Insurance		<u>3,878,703</u>
		\$24,779,475
Government of Canada		
Health Resources Fund		\$ 6,872,158
The Canada Council	908,206	1,100,911
Department of Health and Welfare	113,000	128,781
Atomic Energy Control Board		<u>632,350</u>
		8,734,200
Three Universities Capital Fund		
- General	11,760,000	\$ 8,005,332
- Designated		<u>410,000</u>
		8,415,332
U.B.C. Development Fund	1,018,794	<u>1,029,935</u>
Bank of Montreal - prepaid rent and bank loan - General Services (Administration) Building.		1,947,623
Mr. P.A. Woodward		4,177,527
Alma Mater Society for new SUB		3,424,940
Thunderbird Winter Sports Center for addition to Center		997,364
Faculty Club Membership for Club addition		723,822
Killam General Fund Income for education gymnasias		781,374
District 5 Association of Kinsmen Clubs for Health Sciences Center		121,260
Armoury Rental Fund for education gymnasias		83,201
British Columbia & Yukon division of The Canadian Cancer Society for Cancer Research Institute		50,000
College of Dental Surgeons of British Columbia for dentistry research lab		50,000
The Children's Rehabilitation and Cerebral Palsy Association for Health Sciences Center		18,703
Cecil Green for purchase and renovation of Cecil Green Park		228,365
University - Research Forest reserve		\$ 100,000
- General revenues		<u>2,176,060</u>
Ancillary Enterprises - Operating margins, CM&HC and Bank loans		13,761,332
Various other funds		86,517
	<u>\$31,800,000</u>	<u>\$71,688,030</u>

TABLE THREE

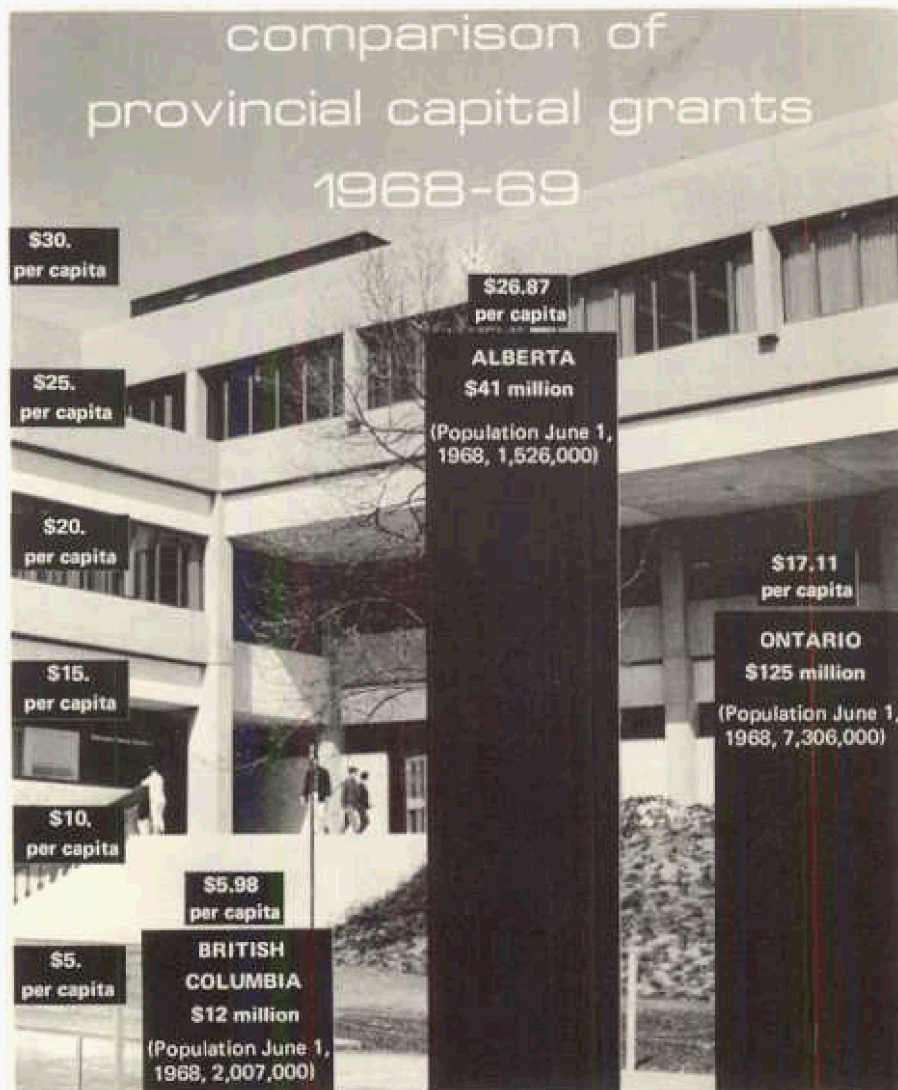


TABLE FOUR

Photo by Extension Graphic Arts

The following buildings were completed and went into operation at UBC during the academic year: Stage One of the Health Sciences Center—a psychiatric treatment unit and facilities for neurological research; an addition to the Faculty Club; the Student Union Building; additions to the Place Vanier and Totem Park residence complexes; a structural testing laboratory for the Department of Civil Engineering; portable accommodation for the Institute of Animal Resource Ecology; a new General Services Administration Building; a new steam boiler plant and building to house it; structural alterations to the Civil Engineering Building for the Computing Center; and the Ladner Carillon and Bell Tower, an attractive addition to the campus and the gift of Mr. Leon Ladner, QC, a former member of the Board of Governors.

The Board of Governors awarded contracts during the academic year to enable construction to start on the following projects: west wing addition to the Biological Sciences Building, addition to the P.A. Woodward Biomedical Library, replacement gymnasium for the Faculty of Education, portable office and seminar accommodation on the West Mall, swine research unit for the Faculty of Agricultural Sciences, and laboratory, office and workshop space for the TRIUMF Project, a new nuclear research facility being constructed in the South Campus research area for the use of scientists at B.C.'s three public universities and the University of Alberta.

The next section of this report will attempt to describe the main issues which were debated in the University community during the 1968–69 academic year. Although I shall deal with these issues individually, it is important to remember that the debates which were engendered were not carried out in sequence. They went on simultaneously during the entire academic year and at times it was as

though the listener was attempting to comprehend several conflicting conversations at the same time. The result was often confusion and bewilderment. It seems appropriate here to point out that hundreds of faculty members and students were deeply involved in these discussions, often at some sacrifice to their academic work. They gave of their time freely, however, and most would agree that the experience gave them new insight into the underlying philosophy which guides University activities. The University owes a considerable debt to all those who willingly devoted so much energy to this work.

The academic year, when it began, marked the beginning of the fourth month in office for Dr. F. Kenneth Hare, UBC's fifth president, who officially took up his duties on June 1, 1968. He was almost immediately faced with the difficult task of coping with the problems raised by a brief entitled "The Future of the University: Fair Weather or Foul?" submitted by the Alma Mater Society. This document, prepared in the spring of 1968 and adopted by the Students' Council in June, listed seven areas for negotiation between the University and the Council. The brief asked that students share in decisions concerning academic and administrative appointments, Faculty Council and student discipline, financing of student education, housing for graduate and undergraduate students, physical planning and building for the University, the presence of students on governing bodies of the University and the relationship between teaching and research at the University.

President Hare had already had a number of meetings with Students' Council and AMS officials and had sought advice from a wide range of faculty members when he called a special meeting of the University Senate on September 4, 1968, to consider matters related to the brief. There was a wide-ranging discussion of the document and how





Photo by Commercial Illustrators Ltd.

F. KENNETH HARE

negotiations would be carried out. The result of the meeting was the appointment of an *ad hoc* Committee on the Student Brief, charged with consulting Students' Council and others and with bringing recommendations to Senate.

The *ad hoc* committee, under the chairmanship of Dean Michael Shaw, head of the Faculty of Agricultural Sciences, began work almost immediately. The committee's discussions with students were not always smooth sailing. The prospect of a collapse in negotiations came following the October 30 meeting of Senate, which approved a four-point *modus operandi* for Dean Shaw's committee and rejected an AMS proposal for a joint conference. The students objected to the Senate-approved procedure on the grounds that it implied a difference between Senators and students and would give students no opportunity to take part in decision-making.

During November there were further discussions between the committee and the AMS, and these resulted in a re-interpretation of the *modus operandi* satisfactory to the student representatives. On December 4th, Dean Shaw was able to report to Senate that negotiations were continuing and that task forces, staffed by students and faculty members, had been formed to deal with various areas in which the students wished discussions.

The first fruits of the discussions were placed before Senate on February 26, 1969. The first report dealt with Faculty Council and Student Discipline and restated a long-standing University principle, namely, that students should be given as much responsibility as possible for their own discipline, that the University should continue to assist them in their task, that faculty should be associated with students when academic matters were involved and that there should be rights of appeal and "procedural justice."

At the April 30, 1969, meeting of Senate Dean Shaw introduced a proposal that the number of student Senators be increased from four to twelve. The proposal was approved, with the net effect that the membership of Senate was increased from 85 to 101 persons, since any increase in student membership requires a similar increase in faculty membership under the terms of the Universities Act.

At the special Senate meeting of September 4, 1968, President Hare had pointed out that some matters raised in the student brief were beyond the power of the Senate or the Board of Governors since they would involve changes in the Universities Act. He pointed out that the provincial government had established a committee under the chairmanship of the Deputy Minister of Education, Dr. G. Neil Perry, to consider relationships among the province's three public universities and between the universities and the provincial government. Dr. Hare stated that he regarded it as vital that UBC prepare a presentation for Dr. Perry's committee. The Senate approved establishment of a presidential advisory committee which, at the meeting of January 8, 1969, chose to recommend to Senate endorsement of a brief prepared by the University's Committee of Deans. The deans' brief, together with some amendments suggested at the Senate meeting, were forwarded to Victoria as were other submissions by the UBC Alumni and Faculty Associations.

Another question which was resolved early in the academic year was that of conducting Senate meetings in public. During the previous academic year Senate, at the request of its student members, asked the Committee on the Role and Organization of Senate to consider whether Senate meetings should be opened. The committee recommended that Senate publish an agenda in advance of its meetings and a detailed summary of proceedings immediately afterwards, but recommended

against establishing a public gallery. This advice was adopted, with the result that Senate was faced with a possible "sit-in" by students. This action was averted when it was agreed to reconsider the "open" Senate question. At the first regular meeting of the 1968–69 academic year on September 11, 1968, Senate agreed to the establishment of a public gallery of 30 persons who could apply to the Registrar for tickets in advance. Senate reserved the right to move *in camera* for private discussions. Thus, Senate became a body whose deliberations were in general open to interested individuals and the news media.

If one debate during the academic year could be described as central, it was that on the ultimate size of the University. Dr. Robert Clark, the University's academic planner, advised Senate on October 30, 1968, that if existing entrance regulations remained unchanged, UBC could expect an enrolment of 34,317 students in the 1973–74 session. This prediction sparked widespread discussions on the campus and resulted in the establishment, at the December 4, 1968, meeting of Senate, of an *ad hoc* Committee on Enrolment Policy.

The committee restricted itself to a consideration of short-range enrolment policies for the coming academic year and the year following. It submitted recommendations, approved by Senate in January, 1969, which would, in conjunction with a more rigid interpretation of existing calendar regulations, result in an enrolment reduction of about 300 students. The following month Senate, still doubtful that facilities in the coming year would be adequate, voted to admit all applicants to the first year who had a B.C. Grade XII average of 65 per cent or better, but warned that those with averages between 60 and 65 per cent would be accepted "only if the University has the physical, financial and educational resources to accommodate them." The *ad hoc* committee continued to discuss proposals for enrolment



Photo by Extension Graphic Arts

**TABLE FIVE**

UBC had about 14 students registered for every faculty member during the year compared with a ratio of one teacher per 16 students in the province's secondary schools in 1966-67.

policy for the 1970–71 academic year but did not present a report in the year reviewed in this report.

The larger question of enrolment policy for future years was, in this period, being intensively discussed by another committee chaired by Dr. Cyril Belshaw, head of the Department of Anthropology and Sociology. The Senate Committee on Long-Range Objectives was formed in the previous academic year and was charged with formulating policies governing the growth and direction of UBC in the ensuing decade. The committee considered a wide variety of topics, including goals for the University, enrolment and admissions policies, and academic structure and organization.

Dr. Belshaw gave a number of brief progress reports during the academic year and presented the first four chapters of the committee's report to Senate on May 21, 1969. In this preliminary report the committee tackled the issues of enrolment limitation and the University's academic organization but failed to reach unanimity on either question. The majority of the committee recommended limiting enrolment to 27,500, but Dr. Belshaw dissented, advocating an enrolment based on the number of students each faculty felt it had the capacity to educate. On the question of changing the organizational structure of the University the committee divided 6–5. The majority favoured some modification of the existing structure; the minority proposed dividing the University into a number of federated colleges. Both these questions are fundamental to the future development of the University and will be the basis for many lively debates in the coming months.

Yet another Senate committee which created a stir when it reported in October, 1968, was that on Academic Building Needs, then chaired by Acting Dean of Arts Dr. Douglas Kenny. Its report indicated that



some \$108 million should be provided for new buildings in the next five years and warned that "It may be inevitable that the academic excellence of the University as a whole will be gradually lowered because of the demands for a rapid increase in space, number of faculty, research equipment and library collections."

The report recommended that working drawings be prepared for projects costing an estimated \$20,000,000, and including an extension to the Buchanan Building, a multi-purpose science building, an undergraduate Library and a Faculty of Law building. The committee made no suggestions for priorities for these projects. Senate referred the report to the President and Board of Governors for serious consideration and action.

At the last meeting in the academic year on June 25, 1969, the committee urged that a start be made on one of the projects mentioned above even though the 1969–70 capital grant from the provincial government was already largely allocated for on-going projects or to begin projects to which the Board was committed.

These brief descriptions of the main reports and issues placed **before** the University community during the academic year scarcely do **justice** to the length and vigour of the debates which they initiated. But, as I said earlier, the discussions were a healthy sign and signified that apathy was absent from University affairs.

Dr. Hare, who became president three months before the **start** of the 1968–69, academic year, came to UBC with a high reputation as a scholar, teacher and administrator. Born and educated in England, he came to Canada after World War II to teach for 19 years at McGill University and obtain his doctorate at the University of Montreal. He was widely known for his work in the field of climatology and meteorology. At McGill he was dean of the Faculty of Arts and Science from 1962 to 1964. He returned to England in 1964 to become **Master**

of Birkbeck College at the University of London. His appointment as president of UBC to succeed Dr. John B. Macdonald was announced in June, 1967.

In his early months as president Dr. Hare dealt with University affairs with vigour and despatch. He held countless meetings with students and faculty members and did his best to acquaint himself with the problems of many academic departments. His colleagues made every effort to keep him fully informed on important matters and to assist him during the difficult early months of his term of office. Unfortunately, overwork and an attack of influenza in September, 1968, forced Dr. Hare to take leave of absence for medical treatment in England.

On October 24 and 25, 1968, during Dr. Hare's absence, the University was confronted with the realities of "student power." Following an address by the American political activist Jerry Rubin, more than 1,000 students occupied the Faculty Club. The management of the Faculty Club decided to refrain from any provocative actions which might have led to violence and allowed the invaders, many of whom had no connection with the University, to remain in the Club. By the morning of October 25 the number occupying the building had dwindled to about 50 and shortly after noon, after two long and confused debates, they decided to leave the Club.

They left to take part in what was probably the largest single gathering of students ever held at UBC. This public meeting, organized by the AMS, took place on the Main Mall in front of the Buchanan Building to discuss the invasion. The majority of the students who spoke at the rally condemned the actions of those who led the invasion. The Students' Council, at a meeting held the following week, as a body condemned the invasion, and later the Council voted to contribute \$2,000 to the Club to compensate for theft and damage.

One positive result of the incident was the "Day of Inquiry" held throughout the University on October 30. The existing schedule of classes was maintained throughout the day but normal lectures were suspended to enable students and their lecturers to discuss the events of October 24 and 25 and other University problems. Dr. Hare, informed of the Faculty Club incident, returned to the campus from London on October 26.

The many conflicting pressures of the presidency proved to be more than Dr. Hare had anticipated, and his resignation was announced on January 11, 1969. In his letter of resignation Dr. Hare said the presidency "is rendered impossible for a man of my temperament, not by things inside the University but by the external environment. The problem is that I see the problems of the University with stark clarity, and believe them to demand immediate solution; yet there are no resources available to the president even to mitigate them, let alone solve them. . . ."

Dr. Walter Koerner, chairman of the Board of Governors, in announcing Dr. Hare's resignation, said it had been received with great reluctance and regret. He said that he and his fellow Board members had the highest respect for Dr. Hare, for his intelligence and his imaginative approach to University problems. He said Dr. Hare, with his broad liberal view of education, had achieved easy rapport with the student body, the faculty and the administration, with alumni and with the Board of Governors, and had made a promising start in overcoming some of the University's problems.

Although he has left UBC, Dr. Hare's many friends and associates are delighted that he decided to remain in Canada and accept a teaching post in his discipline at the University of Toronto.

In the month following Dr. Hare's appointment, the Board of

Governors established a special nominating committee, representative of all components of the University community, to assist it in its search for a new president. The 21-member committee represented the Board of Governors, the Senate, the faculty, the deans, the Alumni Association, the student body and the non-academic administration. The committee, at its first meeting, recommended that I should be appointed president of the University. I shall do all in my power, while serving in the post, to help the University attain the highest excellence in all respects.

Before reporting on the work of the various Faculties of the University, I should like to pay tribute to the contributions made by a number of people who have served the University unstintingly in recent years.

Shortly before the beginning of the current academic year, Mr. Justice Nathan Nemetz announced his resignation from the Board of Governors because of the growing pressure of his duties as a judge of the B.C. Court of Appeal. At the time of his resignation Mr. Justice Nemetz had been a Board member for eleven years and its chairman for three. During that period he devoted countless hours to complex and difficult University matters and his deepest concern was the creation of a campus environment in which the work of both students and faculty could flourish.

Mr. Justice Nemetz has been succeeded as chairman of the Board by Dr. Walter Koerner, a member of Board since 1957. All those who have been closely associated with the University in the past decade will know with what energy Dr. Koerner has approached various University affairs, particularly those bearing on the creation of the Health Sciences Center. The University community can feel confidence that a man of his abilities is guiding the deliberations of the Board of Governors.



**WALTER C. KOERNER**

Photo by Karsh, Ottawa



**HON. MR. JUSTICE N.T. NEMETZ**

Photo by Extension Graphic Arts

# SUMMARY OF REVENUES AND EXPENDITURES

(Excluding Capital Additions to Endowment, Student Loan and Capital Development Funds)

April 1, 1968 to March 31, 1969

	GENERAL FUNDS		TRUST FUNDS		TOTAL		1967-1968	
		Percent	For Specific Purposes	Percent		Percent		Percent
<b>Revenue</b>								
Province of British Columbia								
Operating Grant	\$31,186,572	72.8%	—	—	\$31,186,572	53.7%	\$26,424,541	53.6%
Student Fees	10,038,684	23.4%	—	—	10,038,684	17.3%	9,073,184	18.4%
Services	1,356,110	3.2%	\$ 579,929	3.8%	1,936,039	3.3%	1,449,817	2.9%
Endowment Income	—	—	1,045,742	6.9%	1,045,742	1.8%	644,244	1.3%
Sponsored or Assisted Research	—	—	11,365,670	74.7%	11,365,670	19.6%	8,913,887	18.1%
Gifts, Grants & Bequests	—	—	2,107,271	13.9%	2,107,271	3.6%	2,449,969	4.9%
Miscellaneous	265,539	0.6%	106,779	0.7%	372,318	0.7%	376,666	0.8%
Ancillary Enterprises (Net)	2,350	0.0%	—	—	2,350	0.0%	—	—
	<u>\$42,849,255</u>	<u>100.0%</u>	<u>\$15,205,391</u>	<u>100.0%</u>	<u>\$58,054,646</u>	<u>100.0%</u>	<u>\$49,332,308</u>	<u>100.0%</u>
<b>Expenditure</b>								
Academic	\$30,552,081	71.3%	\$ 1,338,840	8.8%	\$31,890,921	54.9%	\$27,734,517	56.2%
Libraries	3,483,157	8.1%	155,172	1.0%	3,638,329	6.3%	3,231,780	6.6%
Sponsored or Assisted Research	( 80,754)	(0.2%)	10,785,033	70.9%	10,704,279	18.4%	8,605,276	17.4%
Administration	1,673,382	3.9%	6,828	0.0%	1,680,210	2.9%	1,419,545	2.9%
Student Services	735,304	1.7%	253,378	1.7%	988,682	1.7%	766,116	1.6%
Plant Maintenance	4,564,072	10.7%	93,013	0.6%	4,657,085	8.0%	4,220,482	8.6%
Renovations & Alterations	1,017,514	2.4%	—	—	1,017,514	1.8%	1,387,846	2.8%
Scholarships & Bursaries	809,699	1.9%	1,132,026	7.5%	1,941,725	3.3%	1,665,583	3.4%
General Expenses	148,308	0.3%	—	—	148,308	0.3%	141,839	0.2%
Ancillary Enterprises (Net)	—	—	—	—	—	—	7,458	0.0%
	<u>\$42,902,763</u>	<u>100.1%</u>	<u>\$13,764,290</u>	<u>90.5%</u>	<u>\$56,667,053</u>	<u>97.6%</u>	<u>\$49,180,442</u>	<u>99.7%</u>
Reserves carried forward from								
1968-69 to meet Expenditure in								
1969-70 — General Purposes	( 53,508)	(0.1%)	—	—	(53,508)	(0.1%)	(507,554)	(0.1%)
— Specific Purposes	—	—	1,441,101	9.5%	1,441,101	2.5%	659,420	1.3%
	<u>\$42,849,255</u>	<u>100.0%</u>	<u>\$15,205,391</u>	<u>100.0%</u>	<u>\$58,054,646</u>	<u>100.0%</u>	<u>\$49,332,308</u>	<u>100.0%</u>





ALLAN M. McGAVIN

Photo by Campbell, Vancouver

JOHN M. BUCHANAN



Photo by Tony Archer

The 1968–69 academic year also marked the retirement of Mr. John M. Buchanan as Chancellor of the University and the election by acclamation of Mr. Allan McGavin to succeed him in that post. The University was fortunate in having Mr. Buchanan associated with it for so many years. He brought to the deliberations of the Board a wide experience in University and business affairs that won him many friends throughout the UBC community. His successor, Mr. Allan McGavin, has been a member of the Board since 1966. He has taken an active interest in University affairs for years and was co-chairman of the 3 Universities Capital Fund which raised \$21 million in a public fund drive for UBC, Simon Fraser and the University of Victoria. His election by acclamation to the post of Chancellor is fitting in the light of his contributions to University life in B.C.

Finally, it is with regret that I record the death on March 27, 1969, of the University's second president, Dr. Leonard S. Klinck, at the age of 92. Dr. Klinck was one of the founders of UBC, having been appointed Dean of Agriculture in 1914 by our first president, Dr. Frank F. Wesbrook. Within four years he became president to succeed Dr. Wesbrook. The 25 years of his presidency were, in many ways, the most difficult ever faced by UBC. He had to supervise the physical building of the University, parcel out the declining funds of the Depression era and meet the challenges of World War II. Despite these difficulties, he attracted to the campus a group of outstanding teachers, still referred to with awe by older graduates, and he always insisted that the University must serve the people of the Province as widely as possible. He was a pioneer with vision and his name will never be forgotten on this campus or in the Province.

## FACULTY AND STAFF

A number of our senior faculty reached retirement in the past year and I would like to pay tribute to the significant contributions they have made to the University.

Mr. James Easton Smith, associate professor in the Department of Mathematics reached retirement and was re-appointed associate professor and assistant to the head of the department until June 30, 1969.

Another who reached retirement and was re-appointed as lecturer until June, 1969 was Miss Muriel A. Cunliffe, professor in the School of Social Work.

Others who retired were: Dr. Edmund Morrison, professor, Department of English; Mr. Edward S. Pretious, professor, Civil Engineering; and Dr. Joseph M. Odiorne, associate professor, Department of Anatomy.

The year also had its measure of sadness in a number of deaths. Dr. Frank Noakes, former head of Electrical Engineering died only one month after his appointment as acting dean of the Faculty of Applied Science. In 1967 Dr. Noakes was awarded a Canada Centennial Medal in recognition of his services to Canada and he served UBC admirably in his capacity as professor and later as head of the Electrical Engineering Department.

Others were: Dr. Charles Duncan Mackenzie, professor of animal science and assistant to the Dean of Agriculture; Mr. Leslie G.J. Wong, professor, Faculty of Commerce and Business Administration; Dr. Walter William Jeffrey, associate professor, Faculty of Forestry; Dr. Fred A. Krugel, associate professor, Department of German; Dr. Charles Helger Gundry, clinical assistant professor, Department of Psychiatry;

Mr. Grant Vincent, lecturer, School of Physical Education and Recreation; and Mr. J. Russell Mills, part-time lecturer, Faculty of Forestry. Some were near the beginning of, and others well established in, their careers but all had given devoted and distinguished service.

### DEAN OF WOMEN'S OFFICE

Dean of Women Mrs. Helen McCrae reports that the number of women attending the University is increasing and the age composition of the group is changing.

In the winter session 39 per cent of the students were women and 865 were women students ranging in age from mid-twenties to mid-sixties. Forty-three per cent of this group of women had children and many of them were pre-school age. While 79 per cent of the women having pre-school children were married, 21 per cent were single parents, 2 per cent being widowed, 8 per cent separated, 5 per cent divorced and 6 per cent unmarried.

Dean McCrae points out that these figures indicate the need for counselling and such practical help as day-care facilities and financial assistance. While a partial academic program would be most realistic for many of these women students, the federal Student Loan Fund and our own bursary funds provide financial assistance only to full-time students. CUE (Continuing University Education), an organization of mature women students formed this year, conducted a survey of the need for day-care service on or near the campus and influenced decisions made to include day-care services in the proposed Stage Two of the Acadia Park residential complex.

The dean's office continued its counselling service and in February conducted a "Quo Vadis" day at which representative members of each

# registration of all students by age and sex 1968-69

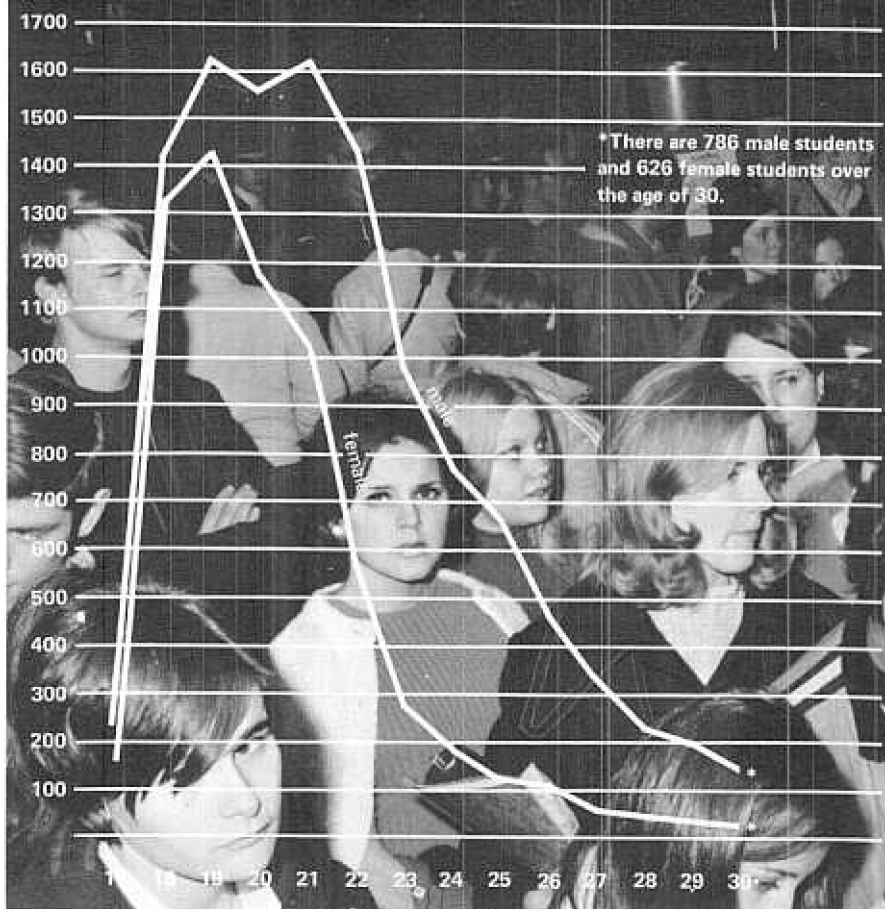


TABLE SIX

Photo by Extension Graphic Arts

Faculty and School and recent women graduates in various fields discussed career opportunities with students.

### GIFTS AND BEQUESTS

Our university continued to receive generous support in the past year in the form of gifts from individuals, associations, corporations and foundations.

More than 1,400 donors gave \$5,706,596 to the University. There were 86 gifts-in-kind. The Alumni Fund, under the chairmanship of Mr. Gerald A. McGavin, contributed a record sum of \$250,289 from 9,798 donors.

The Three Universities Capital Fund has reached \$75,749,684 in pledges, \$44,700,000 of which has come from the Government of British Columbia.

Gifts of particular generosity and interest included \$317,720 from Mr. H.R. MacMillan; \$51,000 from the College of Dental Surgeons of B.C.; \$154,316 from the Vancouver Foundation. The Municipal Chapter of the I.O.D.E. made 14 gifts, bringing their total number of donations to the University to 150. The late Joseph Black left his entire estate to provide bursaries "as the Province of B.C. had been good to him."

### THE LIBRARY

With use of the Sedgewick Library for undergraduate students having doubled in three years and increased over last year by 24 per cent, the

Senate Committee on Academic Building Needs gave approval for construction of a new undergraduate library. Construction of a law building which would include a new law library was also approved and construction on the extension to the Woodward Biomedical Library continued.

Use of all library facilities increased with a total of 1,622,451 recorded loans, 16.7 per cent higher than last year. Loans from branch libraries exceeded loans from the Main Library by almost 230,000, indicating a desirable shift in the balance of use.

Book funds dropped from \$1,011,181 in 1967-68 to \$997,414, the lowest amount available since 1954-55, and comparisons show that UBC has fallen behind the expenditure levels of other comparable institutions in Canada and the U.S.

### OFFICE OF THE REGISTRAR

Enrolment at the University continues to grow with the rate up over last year. The growth of regular winter session registration was up 9.7 per cent to a total of 20,088 at Dec. 1, 1968. The overall total of students taking credit courses, including Winter Session, Summer Session, evening classes and correspondence courses, rose 8 per cent to a total of 27,984.

Students admitted to the University for the first time in September, 1968 numbered 5,978. Of these 60 per cent were admitted at the first-year level, an increase of 0.7 per cent over last year, and 8.7 per cent at the graduate level, up from 7.7 per cent in 1967.

The number of those qualifying for degrees continued to rise with

3,629 being granted this year as compared with 3,604 last year. The doctoral degrees numbered 107, a 23 per cent increase over last year.

### SUMMER SESSION

Professor W.H. Auld, director of the Summer Session, reports that 2,047, or more than one-third of the 5,627 students enrolled had attended the previous Winter Session, reinforcing the trend toward more regular session students continuing their studies in the summer months.

The proportion of teachers and teachers-in-training again declined, falling by about 1 per cent to 57.9 per cent of the student body. The number of students in the graduate faculty increased from 317 to 384.

### EXTENSION DEPARTMENT

The Extension Department's enrollment in its credit courses, non-credit courses and courses in continuing professional education reached a record 22,691, a 20 per cent increase over last year.

The major increases came in the credit courses and in the non-credit courses in the liberal arts, while enrollment in the professional areas was down from last year.

Registration in Extension credit courses rose by 24 per cent to a total of 3,032.

The major development in the credit program was the doubling of the number of courses offered during the May-to-July period to a total of 19 with a registration of 645.



# geographical distribution of students at u.b.c. 1968-69

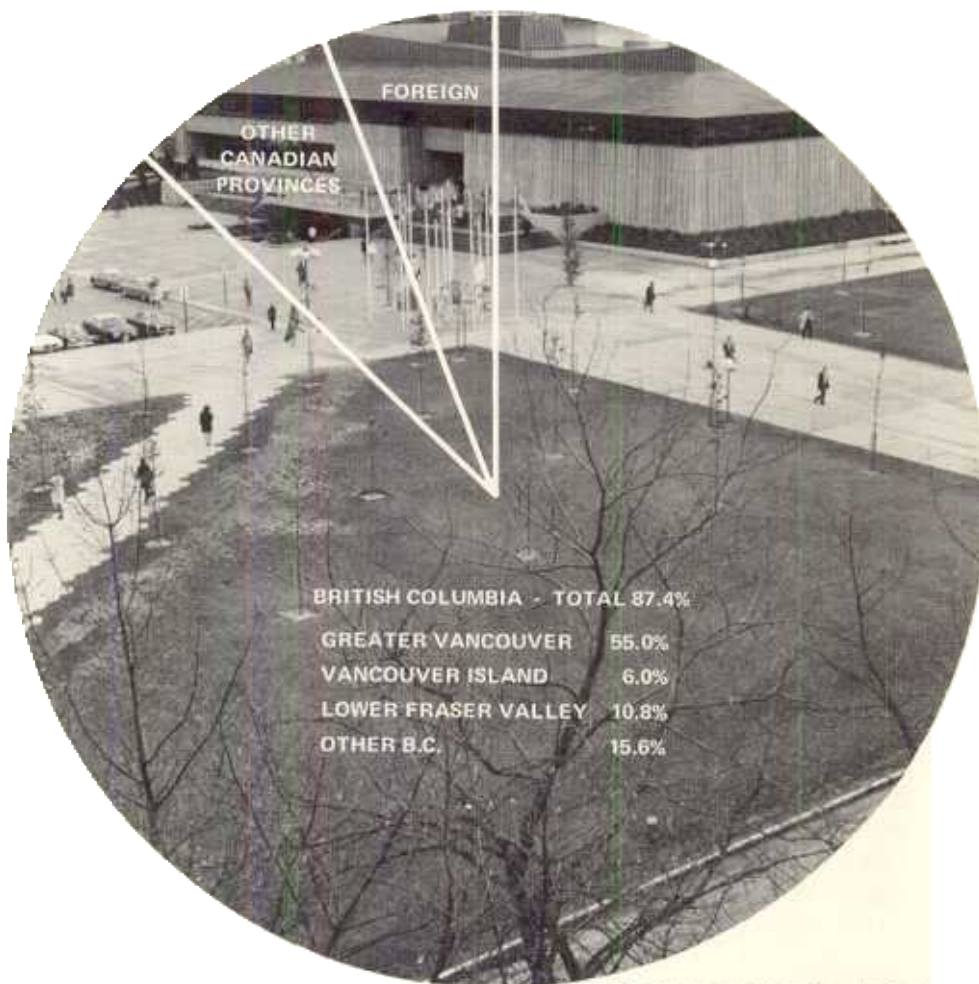


Photo by Extension Graphic Arts

TABLE SEVEN

Three Extension credit courses were offered in Japan during July, 1969 in cooperation with Sophia University in Tokyo.

### FACULTY OF AGRICULTURAL SCIENCES

A new curriculum was adopted and came into effect at the beginning of the 1969 academic year. It provides for four-year majors, double majors and honors programs in the various departments of the Faculty. An important feature of the program is the introduction of two three-unit courses, both required for the B.Sc.(Agric.) degree.

There was no significant change in enrolment which remained steady at about 215. Graduate enrolment during the year was 100. Half the graduate students were Canadian.

An important physical addition to the Faculty was the construction of a swine unit for teaching and research in Animal Science. It is designed to house 40 sows and their progeny for nutritional and physiological research.

The Poultry Science Department continued its research into the utilization of Canadian feed stuffs such as wheat, fish meal and rapeseed meal in poultry feeding.

Use of wood as a feed for ruminant animals is being researched by the Animal Science Department.

The Department of Agricultural Economics is working on the conduct of food marketing, the Department of Soil Science is investigating organic matter in soils and the Department of Plant Science is studying plant pathology and physiology.

**FACULTY OF APPLIED SCIENCE**

The Dean of Applied Science, Professor W.M. Armstrong, resigned to become Deputy President of the University. Professor Frank Noakes served as acting dean until his death August 1, 1969. Since that tragic event Dr. W.D. Finn, head of the Department of Civil Engineering, has been acting dean.

The major development in teaching and research in the Department of Civil Engineering was formation of undergraduate and graduate instruction in water resources and pollution engineering. This program is designed to provide the professional manpower necessary to implement increasingly complex environmental control schemes planned by the provincial and federal governments which are financing basic research in this area. The research program is expected to double in the coming year.

The new Civil Engineering Laboratory for structural research was opened during the year in the area of the campus proposed for a future engineering complex. A significant research contribution from the Department was the report on the liquefaction of sands during earthquakes which is expected to lead to huge cost savings in future nuclear power installations.

The Electrical Engineering Department continued its service to the electrical industry and government bodies by compiling an abstract of all master's and doctorate theses submitted by post-graduate students in electrical engineering departments across Canada.

Course changes have been made to make senior undergraduate instruction more relevant to contemporary electrical engineering developments.

Cooperating with the Faculty of Medicine, the Department of Mechanical Engineering has engaged in biomedical engineering projects, including development of a heart valve and a kidney machine. Courses were initiated in acoustics and sound isolation and an anechoic chamber is under construction. The first Ph.D. candidates since the Department was approved for doctoral studies by Senate received their degrees. Several of their theses were in the field of space dynamics and satellite dynamics, a field in which the Department's competence is now widely recognized.

### FACULTY OF ARTS

Among the more significant events in the Faculty of Arts was the appointment of Dr. John Young, Professor in the Department of Economics, as Dean. On June 30, 1969, Dean Young went on leave to chair, at the behest of Prime Minister Trudeau, the Prices and Incomes Commission set up by the federal government to combat inflation. Associate Dean Douglas T. Kenny was appointed acting dean as of July 1. Two assistant deans were named at the same time: Dr. Robert Will of the Department of Economics and Dr. Harold Knutson of the Department of French.

The Faculty had an active and productive year highlighted by progress toward solution of some long-standing and pressing problems. Increased budgetary allocations enabled departments to secure new faculty appointments and the student-faculty ratio was somewhat improved, although gains were partly offset by a record enrolment of 5,429, an increase of nearly 600 over the previous year.

The Arts One program had another successful year. Several new courses were introduced and extensive course revisions made in various

departments, including the approval of several new programs.

The Department of Asian Studies began offering a Ph.D. degree in Chinese and Japanese and the School of Home Economics developed a graduate program in human nutrition. Three departments—Economics, French and German—awarded their first doctoral degrees.

An intensive conversation-oriented course in French proved highly successful, and Slavonic Studies offered a total immersion summer workshop in Russian.

An interdisciplinary course on French Canada was introduced and a new freshman program was evolved in the History Department to replace History 100. Sociology courses at the undergraduate level were revised, the Classics Department introduced a new course for first-year students and a media workshop with 20-student participation was instituted in Creative Writing.

A major shift toward the critical and evaluatory approach took place in several Fine Arts courses and a program leading to the B.F.A. degree was proposed.

Pressures for new instructional and office space increased and a special Space Committee began deliberations on space needs with attention focussed on plans for an extension to Buchanan Building. Among facilities added to the Faculty's resources were the Dorothy Somerset Studio adjoining the Frederick Wood Theatre and some relocatable office facilities constructed west of the old Auditorium in the summer of 1969.

Reflecting the increasing attention paid to teaching in the Faculty, the Committee on Improvement in Instruction published a report which contained many useful recommendations including establishment of a committee to serve as a clearing house for ideas on instructional methods and techniques.

### **FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION**

UBC Senate approved Ph.D. programs in accounting and in management science. Although formed only three years ago, the Management Science Division now comprises six full-time faculty members and one with a joint appointment. Division members have been active in research into a number of fields new to the Faculty and indicative of its growth. Other faculty members have made significant contributions in finance, transportation and accounting.

The most difficulty problem facing the Faculty arises from the widely-scattered locations of its activities on campus. It is proving impossible to provide a satisfactory academic environment and the problem is critical.

### **FACULTY OF DENTISTRY**

Completion of facilities in the John Barfoot Macdonald Building for the Dental Health Sciences enabled the Faculty of Dentistry to accept its first full class of 40 students. But because of last-minute withdrawals, the number of students who actually enrolled in first year at the beginning of the 1968–69 session was 36. The Faculty moved into the new building the previous year.

Further completion of the building also allowed the initiation of a dental hygiene program. The School of Dental Hygiene provides a two-year program leading to a diploma, qualifying graduates to give dental service to patients under a dentist's supervision. A capacity class of 20 students enrolled in the program.

When the building originally opened about 2,400 square feet of space on the third floor was left unfinished. During the year a \$50,000 grant from the College of Dental Surgeons of British Columbia and financial support from the federal Health Resources Fund and the University's capital fund permitted completion of this space. Installed in the area were an electron-microscope suite, a radio-isotope laboratory, administrative facilities and several general research laboratories.

### FACULTY OF EDUCATION

The major activity in the Faculty of Education during the 1968–69 session was the production of a report by the Commission on the Future of the Faculty of Education containing 85 recommendations intended as guidelines for the future development of the Faculty. The Faculty is now faced with the challenge of discussing and implementing some of the recommendations of the COFFE report.

The Dean of Education, Neville Scarfe, spent the year travelling. He was awarded a Commonwealth Visiting Fellowship, a Nuffield Travelling Fellowship and a British Council Scholarship which enabled him to study the educational systems in Australia, New Zealand, India, Africa and Great Britain. He also acted as a delegate for the University at the Commonwealth Universities Congress in Sydney.

During the year three new post-graduate diploma programs, the only ones of their kind given in Canada, were introduced: one in the education of the deaf, another in the education of the blind, and a third in the education of pre-school children.

In addition, with the cooperation of the federal Department of Indian Affairs and the Department of Anthropology in the Faculty of Arts, a new program, "Cross-Cultural Education," was introduced for

the training of teachers in Indian schools. Also, the Faculty, in collaboration with the Faculty of Medicine, sponsored a series of non-credit lectures on sex education.

With enrolment climbing rapidly at both the undergraduate and graduate levels, the Faculty continued to face problems of lack of space and lack of teaching staff. During the year the Adult Education Department moved into the president's residence. Demands on Audio-Visual Education and Television are so heavy that expansion in these areas is crucial.

The increasing size of the Faculty is also putting strain on the resources of the Lower Mainland to provide practice teaching facilities and the dean suggests that some curtailment of admission to the Faculty may be necessary in order to protect the schools from excessive demands from the University.

### **FACULTY OF FORESTRY**

New courses in forest environmental management, forest ecology and recreation management were introduced during the year. Transformation of the forest harvesting courses from a descriptive to an analytical and conceptual basis involving the use of applied mathematical techniques was continued.

Some of the research areas covered by the Faculty's members included land reclamation after mining, use of high-energy liquid jets in processing wood and other materials, reduction of pulp mill pollution, tree physiology and forest recreation management.

Use of facilities at the University's 10,000-acre research forest near Haney was intense. Several departments also used the camp for seminars and meetings. A measure of activity at the camp is that more than 1,000 people visited the station during July and August.



A continuing education committee for forestry including representatives of government and industry was organized and laid plans for future activities. With the cooperation of the Extension Department courses in forest and watershed management were given and well attended by the public.

### **FACULTY OF GRADUATE STUDIES**

Registration in the Faculty of Graduate Studies increased from 2,065 at Dec. 1, 1967 to 2,456 one year later, an increase of 19 per cent. This was slightly off the 20 per cent increase recorded in the previous year, mainly because of shortage of space and facilities, although insufficient financial support, not enough faculty and shortage of good applicants were also responsible. The number of Ph.D.'s granted increased from 83 in 1967-68 to 104 in 1968-69. Six Ed.D.'s and 418 Master's degrees were awarded this year.

The Institute of Earth and Planetary Sciences was renamed the Institute of Astronomy and Space Sciences. The former Institute of Earth Sciences was established in 1961 as a centre for research and graduate work in geophysics. But two years later a Department of Geophysics was created in the Faculty of Science. Institute activities were begun in some areas of astronomy and in 1966 the Institute was renamed the Institute of Earth and Planetary Sciences. Because of continued expansion of the Institute into astronomy and of the Department of Geophysics into its subject area, and in view of the international and growing interest in astronomical problems, it was decided that it would be more appropriate that the Institute become the Institute of Astronomy and Space Sciences.

Another change occurred with the renaming of the Institute of Fisheries to the Institute of Animal Resource Ecology. Most of this

Institute's members are from the Department of Zoology and are in close contact with colleagues concerned with similar problems involving other groups of animals. It also became apparent that many of the developments in population ecology apply to several groups of animal resources problems. A body of concepts in several biological sciences have evolved which can be integrated and computers have made this integration possible. In recent years there has been a growing social awareness of man's relation with his environment. Problems of resource depletion, pollution and even urban violence are in part ecological problems.

The Institute's new name recognizes its activity in the relatively new science of ecology—the relationship of organisms to their environment—and its expansion of interest into other species. The Institute plans to expand its activities into mathematical ecology and interdisciplinary research and graduate work on man's ecological problems.

A new wet laboratory was installed at the Marion Lake Project in the University's experimental forest near Haney. The project is operating in its third year under a \$300,000 grant. Telemetering facilities were also installed to record continuously such data as the depth of the lake, air and water temperatures, light intensity and wind speed and transmit the information to the University by radio to be recorded on computer tapes.

The Institute has also been involved in developing a proposal for a marine biological station at Bamfield on the west coast of Vancouver Island. UBC is one of the five members of the Western Canadian Universities Marine Biological Organization.

A Resource Sciences Centre was established at the University during the year. The Institute was central in obtaining a \$500,000 grant from

the Ford Foundation to finance the Centre, which will serve as a mechanism to encourage interaction between the Faculties of Forestry, Agricultural Sciences, and Commerce and Business Administration, the School of Community and Regional Planning, and the Departments of Economics, Zoology and Geography. Setting up the Centre was seen as a first step in the University's commitment to reappraise its responsibilities and responsiveness in the resources area. The success of this first essential step will dictate the future role of resources sciences at UBC.

The Council of the Institute of Industrial Relations has asked Dr. Noel Hall to study the future role and organization of the Institute. Search committees in both the Institute of International Relations and the Institute of Asian and Slavonic Research are actively looking for directors.

Much of the Institute of Oceanography's effort during the year continued to be in the area of air-sea interaction. A Ph.D. study was completed showing that 80 per cent of the drag of water on the wind is caused by wave generation, the first reliable measurement of this aspect of air-sea reactions. A major off-campus project was the Institute's participation in the Barbados Oceanographic and Meteorological Experiment to measure small-scale features of air-sea momentum and energy exchange. Higher-level measurements were done through the use of an aircraft from the U.S. National Centre for Atmospheric Research. About 70 per cent of the Institute's personnel and effort are in the physical sciences, including the fields of geophysics and geology.

There has been a notable increase in the number of applicants from around the world for post-doctoral positions at the Institute. This is partially due to the tight employment situation for university graduates. But many applicants were explicit about wanting to work in

subject areas which the Institute is concerned with, indicating that the Institute's reputation outside Canada is a significant factor.

There are two important scientific problems facing the Institute. Further work must be done to understand the exchange of momentum and energy between air and sea as this determines the character of waves and ocean currents and most of the energy supply to the atmosphere for its circulation. The second problem involves the study of circulation and mixing processes in inshore waters which influence pollutant dispersal.

The School of Community and Regional Planning expanded its interest in planning analyses and water resources research with new staff appointments. School members are involved in studies of urbanization and leisure in Canada, the implications of urbanization and economic development policies, public-private interaction in major urban projects in Canada, Canadian general aviation, the history of planning in B.C., and inter-regional transfers of water. Members also act as consultants to the State of Hawaii, the Ford Foundation and the Province of British Columbia.

## FACULTY OF LAW

Enrolment in the Faculty of Law reached 497 this year, a leap from a total of 243 only five years ago. The Admissions Committee was confronted with the difficult task of selecting the 240 admissions which are the limit of the School's first-year capacity. The number of students enrolling in law outran, proportionately, the general rise in University enrolment, indicating a shift in student interest toward disciplines like law whose study is the human condition.

The supply of career law teachers throughout Canada falls far short of the need. Difficulty was experienced in attracting additional faculty and in many instances the size of classes and sections rose beyond the point at which the Faculty had hoped to limit them. Help from members of the practising profession helped keep classes within manageable limits.

Insufficient funds for graduate legal studies was another problem.

A number of distinguished visitors added interest to the activities of the school, among them the Hon. Lee Kuan Yew, Prime Minister of Singapore, who talked with the students about the world situation. Another notable visitor was the Rt. Hon. Lord Denning of Whitchurch, Master of the Roles, and one of England's outstanding jurists, who was guest speaker at a gathering marking the 20th anniversary of the first graduating class of the school.

Student-initiated activities included a "retreat" at Harrison Hot Springs and leadership in expanding legal aid programs through participation in the Inner City Project.

There is a growing interest within law schools and within the profession in programs of renovation and reform which necessitate hard and sustained rethinking about the place, objectives and functions of law schools.

## FACULTY OF MEDICINE

The Psychiatric Unit was opened March 3, 1969. It represents one of the most modern and effective facilities in Canada for the treatment of psychiatric patients. The Unit has three 20-bed services and the staff attached to these services are also responsible for ambulant visits and day, night and emergency care. This is to ensure that the same group of

health professionals deals with the patient throughout his treatment as he progresses from one patient classification to another. The result is cheaper and more effective service. It is the first application of this type of administrative structure in Canada and perhaps in North America.

The Unit's architecture is also a break with the past. The Unit resembles a tasteful motel and does not have the all-too-common antiseptic atmosphere of many hospitals. The psychological benefits of a therapeutic environment lie behind the design.

A second major development in the Faculty was the opening of the first Family Practice Unit near the Vancouver General Hospital. It will be used to introduce students, residents and interns to a model form of family practice and perhaps encourage more of them to enter general practice. It will also provide an experimental model to determine the ideal ratio of doctors, nurses, social workers and others needed to operate a modern and efficient family practice unit. It is anticipated that a second unit will be opened in 1970 on campus, with an entirely different mixture of health professionals, for further evaluation.

Construction began on an extension to the Woodward Biomedical Library which will double its capacity when completed early in 1970. Plans are proceeding for construction of the 350-bed teaching hospital on campus. Until the hospital is built the faculty will continue to face severe space limitations.

A statement of the objectives of the Faculty of Medicine was developed, vesting the faculty as a whole rather than individual departments with the responsibility for teaching in any one area.

A major curriculum change was made in the first-year program. Students are now able to take physiology and biochemistry in their pre-medical years and have much more time for electives in their first year.

### FACULTY OF PHARMACEUTICAL SCIENCES

In keeping with modern concepts of pharmaceutical education and research, the name of the Faculty of Pharmacy was changed during the year to the Faculty of Pharmaceutical Sciences. The University Senate and Board of Governors also approved the Faculty's request to offer a Ph.D. degree and the initials of the baccalaureate and master's degrees were changed from B.S.P. to B.Sc.(Pharm.) and M.S.P. to M.Sc., reflecting the scientific nature of the degrees.

Enrolment figures have shown a significant increase. Enrolment in the first year is up 60 per cent and a 57 per cent increase has been recorded in the number of students registering in the Faculty. Growing numbers of students are transferring to the Faculty from other faculties, universities and regional colleges. The Faculty has so arranged its program that students can transfer directly into the second year. Transfer of students into the Faculty should increase in the future. The Faculty now has its first six students working on Ph.D. programs and seven on master's programs.

The experimental clinical pharmaceuticals program introduced last year was enthusiastically received by students and clinical instructors. Under this program students are exposed to the practical situation of carrying out the responsibilities of a pharmacist in a hospital or pharmacy under supervision. It is being undertaken again this year.

Three residencies were established in teaching hospitals, two in Vancouver and one in Victoria, controlled by the Faculty through joint committees with hospital personnel. Hospital pharmacy in British Columbia has not kept pace with developments in other areas. Changes are needed at the practice level and they must be recognized as necessary by hospital administrators and government officials.

More than 450 pharmacists in the province participated in the Faculty's continuing education program which offers a wide variety of courses throughout the province and at the University. An extensive program of continuing education is mandatory if a practising pharmacist is to maintain his abilities. The professional body in British Columbia is well on its way to making compulsory some continuing education for each of its members.

An extension to the George Cunningham Pharmacy Building is at the working drawing stage and it is anticipated that it will go to tender in 1970. The addition will provide about 15,000 square feet of net space which will be used for research and graduate study.

### FACULTY OF SCIENCE

The Faculty of Science had normal increases in most departments. Growth rates were highest in the Departments of Computer Science, Geology and Geophysics. Student increase in Geophysics was up 35 per cent over the previous year.

Of great significance to the Department of Botany was the approval by the Board of Governors of a blueprint for a 77-acre botanical garden which will include a world-wide collection of plants. Its prime objective is to stimulate botanical study of plants in relation to their environment and man.

The Department also acquired the bulk of the bryophyte herbarium from Stanford University in California, the most complete and representative collection of North American bryophytes (liverworts and mosses) in the world.

Department members have also been active in establishing provincial ecological reserves on crown land. Each area represents a specific



biological, geological and climatic area of the province and its preservation will ensure an outdoor laboratory for future biological studies.

More than 800 enquiries regarding admission to the Department of Chemistry's graduate school were received and out of that number 37 students were admitted in the fall of 1968. Development of research space in the Department's sub-basement was completed and an Ebel and Eagle Spectrograph, one of three or four in North America, is now being installed.

The Department of Computer Science, established by the University's Senate in the closing months of the previous academic year, offered an undergraduate program and took over an existing graduate program. The new department is administratively independent of the Computer Centre, a facility shared by all UBC departments.

A third-generation computer was installed in the Centre to replace the earlier IBM 7044 model. The new IBM 360 Model 67 increases response speed and makes it possible for 20 to 30 subscribers to use the computer simultaneously from terminals scattered across the campus on a typical afternoon. About 800 faculty members and graduate students use the computer for research work and approximately 2,000 undergraduates use it in their courses. Use of the facility by subscribers outside of the Faculties of Science and Engineering last year exceeded total University use three years before.

Easily the most important single event in the Department of Geology was a decision to remove the department, finally, from its dilapidated tar-paper shacks. Construction is scheduled to begin in the spring of 1970 on a \$4 million Geological Sciences Centre west of the old B.C. Research Council building on Main Mall. UBC has committed \$930,000

to the project and leaders in the oil and mining industries will ask colleagues to contribute \$3.1 million. Most of the department is housed in four shacks built as huts for the armed services at the beginning of World War II. Enrolment in the department is the largest of any geology department in the free world.

Enrolment in the Department of Geophysics has doubled in the past two years and the number of candidates entering the M.Sc. and Ph.D. programs has been held to the maximum possible with existing Faculty and Department resources. During the year the Department moved into the old B.C. Research Council building. It had been accommodated up until then in the old Physical Metallurgy Building, the Chemical Engineering Building, the Physics Building and various temporary huts. Conversion of the building requires construction during the summers of 1969 and 1970. A telescopic dome, donated by the federal Department of Energy, Mines and Resources, has been mounted on the roof of the building. It will house the 10-inch telescope used by the Department for teaching purposes.

A good indication of the amount of research work being done in the Department of Mathematics is that the 12 Ph.D. degrees awarded or completed during the year are more than the total doctoral degrees given by the Department from 1950 to 1964.

The Department was active in forming the B.C. Committee on the Undergraduate Program in Mathematics, an organization representing universities, colleges and institutions giving post-secondary education in mathematics. Aim of the organization is to acquaint members with the mathematics courses offered by others so that individual programs can be designed more rationally.

A course was initiated by the Department of Microbiology for students in engineering or other non-biological sciences which requires

## THE PRESIDENT'S REPORT

no prerequisite. Microbiology also made mandatory a research project as part of the work of fourth year students in the department.

Members of the Physics Department participated with members of the Geophysics Department in submitting an application to the National Research Council for a negotiated development grant in astronomy and laboratory astrophysics.

Four informal groups in the Department of Zoology furthered their activities in their disciplines. The cell biology group has formulated a sequence of courses for prospective cell biologists in the biology program. The community and population biology group includes the staff members of the Institute of Animal Resource Ecology, formerly the Institute of Fisheries. This group has developed new approaches in zoology which cut across traditional subject boundaries. Its pattern of growth is in line with trends elsewhere on the continent which place an emphasis on interdisciplinary effort to solve environmental problems. The comparative physiology and biochemistry group has also revised its courses to provide more compact and comprehensive training. Research projects by members of this group have been assisted by a grant from the Fisheries Research Board. Most diffuse of the four groups is the evolutionary biology group. Its interests centre on organismic biology for a wide variety of animal groups. The group has contributed substantially to the knowledge of the biology of B.C.