

Minnesota University
The President's report, 1961/62

President

O. MEREDITH WILSON

Board of Regents
(on June 30, 1962)

DANIEL C. GAINNEY
RICHARD L. GRIGGS
BJARNE E. GROTTUM
ROBERT E. HESS
MARJORIE J. HOWARD
(Mrs. C. Edward)
FRED J. HUGHES
A. I. JOHNSON
LESTER A. MALKERSON
CHARLES W. MAYO, M.D.
A. J. OLSON
OTTO A. SILHA
HERMAN F. SKYBERG

11P3
P92

CONTENTS

FOREWORD	5
TEACHING	7
RESEARCH	17
FACTS AND FIGURES	(Center Fold Insert)
PUBLIC SERVICE AND EDUCATION	22
CULTURAL ACTIVITIES	25
STUDENT AND ALUMNI ACTIVITY	28
NOTABLE EVENTS	30



THE FOLLOWING PAGES contain a report of stewardship for the fiscal year ending June 30, 1962. It is in a sense a report to stockholders; an accounting to the citizens of Minnesota on the funds they have entrusted to us as an investment in the futures of their sons and daughters.

June 30, 1962 marked the close of my second year at the University. They have been busy and exciting years in which the University has faced many problems and enjoyed many opportunities. This report outlines major achievements of the past year, puts them into perspective and looks to the future.

When I came to the University of Minnesota I was aware of the great tradition fashioned by those who preceded me, and confident that from this remarkable past, great strength could be drawn. We have made important progress. In instruction, research and public service, there have been continuous advances, as the University has sought to adapt itself to the changing times.

During the period covered by this report, enrollments have continued their dramatic rise. In the fall of 1961 there were 30,846 full-time students regularly attending the University. This was 2,569 more than were present in the fall of 1960. This means that in that one year we added more students than are found in the total student body of many of the nation's colleges. In the years that follow, this increase in numbers will accelerate greatly. Compounding the problem are the complex and varied ways in which society today makes use of education and educational products.

It is important as we face the problem of numbers that we view it in the proper context. First, the University is not seeking to be large. Our size is a by-product of its own excellence as well as a result of the University's location in the greatest concentration of population in the state. Simply stated, this is where the students are and it is where they would like to be.

It is important, too, that we view the education of our students in relation to the contributions that their education will make to our society. There is no way in which we can maintain today's economy without higher education. There is no way in which we can finance what we now do and what must be done tomorrow to meet our needs without increasing the flow of trained minds into the economy. There is no way in which we can successfully defend ourselves without increased investment in higher education.

Education must be recognized as an investment if we are properly to understand what we seek to achieve at the University. Of all the capital investments made by the people of this nation in the years since its founding, the most critical, the most productive, the most important in moving us ahead of other nations has been our investment in human minds.

As we seek more effectively to serve those students already with us, and to prepare to accommodate the vast numbers who will soon be upon us, we must be increasingly inventive. Our culture requires that these students be accommodated. To deny them a chance to grow intellectually is to deny their humanity. To reduce the quality of all education, to diffuse the benefits over the increased numbers would be a personal disaster for them and a national disaster for us.

It was this concern that led the faculty during the past year to engage in two particularly significant and rewarding conversations. One was the year-

FOREWORD

long discussion which resulted in recommendations to reorganize the academic units within the University. The other was the conference on HIGHER EDUCATION TOMORROW: CHALLENGES AND OPPORTUNITIES FOR THE UNIVERSITY OF MINNESOTA held at Little Falls in March of 1962.

In the Little Falls Conference members of the faculty directed their attention toward ways in which the University might improve instruction without substantially increasing costs; and toward how to maintain excellence in the face of dramatically increasing enrollments.

Discussions leading to the proposals on reorganization were based on the premise that all students receiving the Bachelor's degree from the University should have some common experience which would assure us that any Minnesota man or woman, from whatever specialty, would bear the hallmark of liberal understanding.

These were important conversations, and while they treated with problems that are not easily and quickly resolved, they did develop valuable insights as to the goals of the University and ways in which these goals can best be achieved. The conversations will, of course, continue as we further seek ways in which to serve the state and its youth effectively.

One final observation: The society in which we live is vastly different from those that preceded it. Unlike earlier man we are no longer resigned to what the fates may have in store. Instead we seek to bring nature and life to our terms. We seek to create a tomorrow appropriate to our will rather than adjusting to its requirements.

This assumption that somehow we shall be different tomorrow is the product of our universities. The marked transformation in the world in which we now live is the direct consequence of the work of university men. We, in other words, can be charged with having authored this rapidly changing world.

There is no way adequately to express my pride in what I have found here at the University. This is a remarkable institution—a monument to the vision and the faith of the people of this state. Through them we have been bequeathed a favorable climate in which to grow. For this growth we are dependent upon the support of the people. I am confident that the University's record of past distinguished service will help us to gain sympathetic support for a vigorous present as we fashion education for a hopeful future.

Meredith Wilson

"We may therefore rejoice with exceeding great joy over the opportunities which our children, and our children's children shall here be given, of learning those sciences which adorn manhood and womanhood, and those arts which enrich and emancipate communities . . ."

FROM THE INAUGURAL ADDRESS OF THE UNIVERSITY'S FIRST PRESIDENT, WILLIAM WATTS FOLWELL, DECEMBER 22, 1869.

TEACHING IS THE MAIN OBJECTIVE of the University of Minnesota. The size of the student body in the fall of 1961 surpassed even the peak post-war attendance of the fall of 1947. The regular collegiate day-school attendance in the fall of 1961 was 30,846, an increase of 2,569 in one year.

The record-breaking total of students who were provided some type of instruction by the University from July 1, 1961, through June 30, 1962, was 90,725, an increase of 560 students over the previous year and an increase of 3,129 over the 1959-60 year. These students were enrolled in the collegiate programs on the Minneapolis, St. Paul, Duluth, and Morris Campuses; in Schools of Agriculture and other sub-collegiate schools; in the General Extension Division; and in the short courses conducted by the Office of Agricultural Short Courses and the Agricultural Extension Service.

Freshmen who entered during the fall, winter, and spring quarters of the 1961-62 academic year numbered 8,342 of whom 96 per cent came from Minnesota high schools. During the same period foreign students, totaling 1,175 men and women from 72 countries, comprised, as in recent years, about three per cent of the student body. Non-resident collegiate enrollment declined from the figure of 14 per cent, which had prevailed during the last decade, to 12.6 per cent in 1961-62. Charts on enrollment, and on the degrees conferred and certificates awarded, can be found in the *Facts and Figures* section of this report.

To provide the best instruction for this record number of students, the University faculty and administration have had to tax ingenuity and resourcefulness. Through continuous effort on the part of faculty and staff, educational standards at the University have remained high. Provision is made in all schools to give individual attention to any student requesting it. Courses were taught and research was carried on by 1,605 full-time and 547 part-time budgeted faculty members, assisted by 750 teaching, research, administrative, and clinical fellows. These teachers and scientists were aided by more than 6,000 civil service staff members, a number of whom were students working part time.

THE RESIDENTS OF MINNESOTA, through their elected representatives in the State Legislature, provide the major funds for the functioning of the University. The programs of the University also receive support and encouragement from the people of the area through the Alumni Association and other

TEACHING

**Support
from the People**

organizations and through individual contributions. This year, personal solicitation on behalf of the Minnesota Museum of Natural History has resulted in substantial aid toward the building of a new wing. Other funds have been donated to finish the fourth floor of Diehl Hall and construct a fifth floor, both of which will be used for a medical library. Private contributions will also help build a sixth floor, which will provide research space for neurology and psychiatry.

The many fine books given to the University Libraries annually, in single volumes and in great collections, represent a type of interest in the University that is intrinsic to its effective function in the scholarly world.

Scholarships and research funds, vital to our progress, are aided enormously by contributions from friends of the University. This year, a \$200,000 bequest made to the Minnesota Medical Foundation* will enable the Foundation to establish its first endowed research fund at the University. This bequest is especially important because it will provide the means for research to be conducted by younger staff members, graduate students and interns, all of whom often find it difficult to get funds for such projects.

The Variety Club of the Northwest continued its support of the Variety Club Heart Hospital (which it built on the University campus) with an annual contribution of \$50,000 for indigent patient care. Statewide contributions to the Masonic Memorial Fund provide equipment for the Masonic Memorial Hospital, opened in 1958 through the generosity of Minnesota Masons. With the Cancer Research Center built from funds provided by the Minnesota Veterans of Foreign Wars and its auxiliaries, these buildings form an imposing complex dedicated to seeking the cause and cure of some of man's most devastating diseases.

MANY IMPORTANT AREAS of learning are developed through grants to the University. The following are only a few examples which show the scope of new programs made possible by grants.

Grants for Program and Faculty Development

An Atomic Energy Commission training grant enabled the addition of courses in radionuclides in the College of Pharmacy. In the School of Public Health, a U. S. Public Health Service grant has permitted the development of an outstanding program in radiological health.

A grant from the National Council on Legal Clinics helped the Law School inaugurate a noteworthy experiment in instruction in family law and counseling. Students in the program participated in actual cases involving family law problems, both in the courts and in public social service agencies.

Important new programs in the field of education have been initiated through grants. This year our first year-long Institute in Counselor Education was conducted under funds provided by the National Defense Education Act.

* The Minnesota Medical Foundation is a private nonprofit organization dedicated to the support of education and research at the Medical School. It is located at the Medical School and operated through the University but is entirely self supporting.

Similarly, a grant from the United States Office of Education helped launch a new program for teaching the deaf.

With the aid of National Defense Education Act fellowships, the Universities of Minnesota, Iowa, and Wisconsin have established a cooperative program of studies in the Classics leading to the Ph.D. degree.

Grants for faculty development are valuable to a University. At the University of Minnesota, our outstanding program of South Asian Studies has been furthered by a grant from the Hill Family Foundation which will enable a faculty member to study in South Asia each year for the next decade.

A unique faculty development program was brought to the Minnesota campus through a grant from the Ford Foundation. During the Summer of 1961, 18 School of Business Administration faculty members were joined by teachers from two other universities in an intensive eight-week study of modern mathematics. Our faculty continued the study with bi-weekly classes during the academic year.

THE UNIVERSITY'S MEDICAL CURRICULA are constantly expanding in response to the demand for better all-around health care. Beginning this year, the College of Pharmacy has added a Master's Degree program in hospital pharmacy. The University's program in medical education at Ancker Hospital in St. Paul was strengthened with the appointment of a full-time Director of Medical Education at that hospital and of full-time heads of medicine, surgery and psychiatry who will work closely with heads of related departments of the Medical School. A new two-year Master's degree program in hospital engineering has been developed by the School of Public Health and the Department of Mechanical Engineering. This seeks to provide communities with personnel who have both an engineering background and a knowledge of the design, construction, and operational problems of hospitals. The School of Dentistry is working to improve conditions caused by the acute shortage of dentists in Minnesota. Since present facilities are not adequate for the School to enlarge its student body, new courses teach students to improve their efficiency by use of auxiliary aids. A program, supported by the Public Health Service, to teach undergraduate students the most efficient use of the dental laboratory, the dental hygienist, and the dental assistant was the first of its kind in the United States.

The realization that a basic liberal education is important in any field has led to the development of new courses in almost all schools. For example, Elementary Education students now register for their first year in the College of Science, Literature, and the Arts. Curricula in the College of Agriculture, Forestry, and Home Economics have been broadened to make it possible for students to secure an excellent liberal education in the humanities and social sciences as well as in the biological sciences and their professional areas.

Though space shortages force experiments in large scale instruction, more personal attention is being given the superior student. Sixteen departments in

Other Curricular Developments

the College of Science, Literature, and the Arts have developed programs so that a student may graduate with honors in his field of specialization.

In keeping with the trend toward more advanced study in the field of Business Administration, the Regents of the University have approved a proposal to establish a Graduate School of Business Administration. This School will confer the Master of Business Administration degree and also degrees of Master of Science in Business and Doctor of Philosophy in Business Administration and will thus meet the need for more emphasis on research and management development. The School will begin operating in the 1962-63 academic year, and if sufficient funds can be provided, it will be in full operation by 1968.

Cooperative Educational Efforts

AS EACH YEAR GREATER NUMBERS of people seek higher education, the importance of cooperative educational efforts grows. Two organizations active in these efforts should be mentioned.

The Committee on Institutional Cooperation, made up of representatives of the Big Ten universities and the University of Chicago, studies and plans those specialized areas of teaching and research in which inter-institutional cooperation may be desirable.

The Liaison Committee on Higher Education in Minnesota provides for educational planning and coordination of public higher education affecting the relationships between the schools of the public school system, the State Colleges, and the University of Minnesota, and makes pertinent recommendations to the Regents of the University, the State College Board, the State Board of Education, and the State Legislature. The major portion of the Committee's efforts since 1961 has been devoted to a study of ways in which educational voids throughout the state might be filled. Particular attention has been paid to the educational needs of southwestern Minnesota. Inherent in this study was consideration of the role of junior colleges in Minnesota and their financing.

University Reorganization

AN INCREASING AWARENESS of the need for a liberal education for all students and a desire among University faculty and administration to integrate physical science and technology have led to a plan for a major reorganization of the University's academic structure.

Proposals for the reorganization, developed by the University's Senate Committee on Education, have been discussed by the Senate, the Administration and among faculty members in formal and informal sessions over a period of two years. All ideas and suggestions were taken into consideration. Four plans were developed before the fifth and final plan was developed and accepted by the University Senate in June, 1962.

The core of the proposal is a change of the College of Science, Literature, and the Arts into a new College of Liberal Arts, which may include any department of the University offering a major leading to the B.A. degree.

Greater physical and administrative unification of related departments will be effected through the establishment of divisions of Humanities, Social Science, Mathematics, and Biological Science within the College of Liberal Arts. Functionally, the College of Liberal Arts will include some departments administratively located in the Institute of Technology. The Division of Mathematics and Statistics will include, in addition to the Arts College Department of Mathematics and Statistics, the IT Department of Mathematics. The Division of Physical Sciences will include those departments in the Institute of Technology which offer majors leading to the B.A. degree. The idea of "dual citizenship" for faculty members in those departments serving separate colleges which share common subject matter or ways of approaching knowledge will help to strengthen the overall unity of the University.

An All-University Council in Liberal Education will be established to identify minimum liberal arts requirements on a University-wide basis and to further the development of liberal arts programs.

The basic reorganization will begin in the fall of 1963, and will require a period of years to be accomplished. One of the first actions will be to move the Departments of Geology and Astronomy from the College of Science, Literature, and the Arts to the Institute of Technology. This move is being taken in an attempt to group the physical sciences most closely related in one administrative unit with engineering.

Many other changes are involved in the long-range planning. They will take place after appropriate faculty study and recommendation.

A SUMMER PROGRAM of more than 1,000 courses offered by regular faculty members of the University and by outstanding visitors serves a two-fold purpose. It enables the student regularly enrolled during the academic year to accelerate his work and offers an opportunity for the working professional to extend his competence.

In addition to the substantial portion of the regular academic curriculum available in the Summer Session, the 1961 sessions offered a wide variety of special workshops and institutes. The National Science Foundation and the Louis W. and Maud Hill Family Foundation have made a number of these possible. Included are institutes for high school and college teachers in the fields of science and mathematics, and an institute in radiation biology.

Under the direction of the language departments, two residence houses are maintained, one for students of the French language and one for students of German. Known as Modern Language Institutes, these houses are an integral part of the Summer Session program, and provide the students with living quarters where only the language being studied is spoken.

Summer Session

Continuing Education Programs

A comparative study of learning achievement between the relatively concentrated pattern of class hour meetings of the Summer Session with the distributed class hour pattern of the academic quarters showed no statistically significant difference in learning achievement.

AGRICULTURAL SHORT COURSES

DURING THE PAST YEAR 10,534 persons attended 43 short courses, sponsored by the Institute of Agriculture's Office of Agricultural Short Courses on the St. Paul campus. This office also sponsored short courses, institutes, workshops, and field days at the Schools of Agriculture and Experiment Stations at Morris, Crookston, Grand Rapids, and Waseca, and at the Experiment Stations at Duluth, Rosemount, and Lamberton. They were attended by several thousand individuals. Among the many and varied Institute-sponsored programs were Animal Nutrition, Dairy Industry, and Horticulture short courses.

AGRICULTURAL EXTENSION SERVICE

EXTENSION EDUCATION PROGRAMS in agriculture, home economics and related subjects were conducted by the Agricultural Extension Service in all counties of the state. These programs were designed to bring the results of research to farmers, homemakers, agriculturally related businesses and others. In addition, the resources of the University and other public agencies were used to help solve community and area problems through the rural areas development program.

Special seminars were conducted on the problems of agricultural adjustment and the understanding of other public issues. Educational efforts were also directed toward helping farm people understand the adjustment and rural development programs of the United States Department of Agriculture.

Many programs represent the joint efforts of the Office of Agricultural Short Courses, the Agricultural Extension Service and the General Extension Division. An example is the Rural-Urban Seminars in Public Policy held throughout the state.

The staff of county extension agents, with the assistance of a core group of subject matter specialists who have headquarters on the St. Paul campus, served as educational outposts of the University in Minnesota's 87 counties. Each county has at least one agricultural agent; many have more agents; and several have specialized soils, forestry and other agents. More than 2,300,000 direct contacts were made by the extension staff with people seeking information. Additional educational efforts were made through radio, television and newspapers. More than 53,000 boys and girls participated in the 4-H club program and nearly 47,000 women were enrolled in the home economics extension programs. People throughout the state were provided with more than 600,000 bulletins.

GENERAL EXTENSION DIVISION

RESIDENTS OF MINNESOTA who do not attend regular day-school classes may also improve and enlarge their educations through the departments of the General Extension Division. A total of 37,333 persons enrolled in evening, special, and correspondence programs and in the Division's short courses and Continuation Center Courses during 1961-62.

The largest group of Extension Division students, 16,051, was enrolled in evening classes. These courses cover a range of 649 subjects in 1,000 class sections. More than 85 per cent of the instructors are regular staff members of the University.

Seventy-three per cent of those individuals taking collegiate, high school, certificate, preparatory, and special courses through the Correspondence Study Department were from Minnesota, while the balance represented all of the states and several foreign countries. The Correspondence Department continues to serve more than 100 aliens each year through a naturalization program.

Post-graduate adult education is provided through the Center for Continuation Study with the cooperation of the appropriate departments of the University. During the year 10,451 persons enrolled in the Center's 156 courses, conferences, and institutes. Two institutes of the Center, which are unique in the nation, are the Juvenile Court Judges and the Juvenile Officers' Institutes. They are supported by the National Institute of Mental Health.

The Special Class area of the Department of Evening and Special Classes operates for the benefit of Minnesota citizens in business, industry, and professional activities. Special short courses administered by this division include such diverse subjects as grain marketing, purchasing, business letter writing, efficient reading, dietetics, human relations in industry, and purchasing home furnishings. Outstanding among the division's recent endeavors is the Engineering Technician program which trains engineering technicians to act as the liaison between the professional engineer and the skilled worker.

THE WOMEN'S CONTINUING EDUCATION PROGRAM

SINCE ITS ESTABLISHMENT at the University in 1960, the Women's Continuing Education Program, underwritten by a grant from the Carnegie Corporation of New York, has received a great deal of attention as a pioneer and leader in its field. The program's objectives are to return to the nation's paid and unpaid manpower pool a group of intelligent, educated women whose talents might otherwise be inadequately used during their mature years, and to increase the personal happiness of many women by offering them new interests and helping them to reach new objectives. The Minnesota Plan, as the program is often called, explores and explains the resources of the University to women, and influences the University so that its facilities are more readily available for effective use by women.

Three hundred and eighty-five women registered in the program this year. About 60 of the total membership of 745 attended three special liberal arts seminars conducted through the Extension Division, and the majority of the others took advantage of regular course offerings of the University.

Counseling was the most important and popular service offered. A baby-sitting service, organized by the mothers in the program, provided a convenient place for student-mothers to leave their pre-school children while attending classes. Job placement and a small scholarship program were among other services provided to meet special needs.

The University Libraries

DURING THE YEAR 1961-62 a milestone in the growth of the University Libraries was passed when the Walter Library received its two millionth volume. The item selected for this honor was a rare 15th century manuscript letter from Juan de Ayala to Ferdinand and Isabella acquired for the Library by the late James Ford Bell, Regent of the University.

Special acquisitions this year have been generous additions to the Bell collection on the history of trade; gifts to the Kerlan collection of children's literature; the James Stevens manuscripts for the Paul Bunyan collection; significant medical history items made possible by funds contributed by Mr. and Mrs. John S. Pillsbury and others; a collection of personal correspondence between Joseph Warren Beach and important literary figures, given by Mrs. Beach; a collection of Long Island whaling literature and manuscripts from Vice President Malcolm M. Willey; and a collection of beautifully designed books from the Gregynog Press, in Wales, the gift of Miss Perrie Jones, for many years Chief Librarian of the St. Paul Public Library.

Notable among the developments that reflect the growth of the University Libraries was the establishment of three new service units in the Library system. The 25,000 volume Ames Library of South Asia, a gift from its founder, Charles Lesley Ames of St. Paul, was installed in special new quarters in Walter Library. An Education Library, with an initial collection of 125,000 volumes, was opened in the space formerly occupied by the Bio-Medical Library to serve the needs of the departments of Education, Psychology, and Library Science. As the year drew to a close, the first books were being transferred from overcrowded areas in Walter Library and various departmental libraries to the new Library Storehouse in the University Village area. The shift of several thousand lesser-used volumes to this new storage facility will help relieve the overcrowded library stacks until a permanent library for the West Bank area can be constructed.

Faculty and Staff Publication

FACULTY AND STAFF MEMBERS throughout the University share their wide knowledge and experience through means of the written word. From the University of Minnesota come articles, pamphlets, newspapers, magazines, and books. Popular works and scholarly writings of a purely scientific nature present the results of research projects, offer new material and ideas for educators, and aid in raising standards and bringing new ideas to men and women engaged in a

variety of activities. The publications of the University of Minnesota Press are regarded as works of major importance throughout the United States. During the 1961-62 academic year, more than half of these were written by members of the faculty.

Several publications carry a comprehensive picture of the University's work and activities. *The Staff Bulletin*, the University's "house organ," was published twice monthly from October to May by the Department of University Relations. *Report From Your University of Minnesota* was sent out three times during the year to parents of all students at the University. The monthly *Calendar of Events* and the *Official Daily Bulletin* were also published regularly.

Minnesotans throughout the state rely on the information sent out by the Institute of Agriculture, which during the year distributed more than a million copies of approximately 325 publications. Three of the most widely circulated periodicals in 1961-62 were *Minnesota Farm Business Notes*, *The Minnesota Feed Service*, and *Minnesota Farm and Home Science*. The Institute's bulletins were also in great demand. Among them were *Outdoor Cookery*, *Freezing Foods for Home Use*, and *Landscaping the Home*.

Many other departments publish materials of great importance to special vocational groups and to the general public. Most of these materials are distributed without charge as a service of the University.

RECOGNITION OF THE URGENCY for higher education is evidenced in the increased number of scholarships and fellowships made available each year. Valuable financial assistance is given by government agencies, foundations and organizations, business firms, and individual donors. "Awarded on the basis of academic aptitude, vocational promise, and leadership" are the words often found accompanying scholarships and fellowships. That the University of Minnesota has many persons who meet these qualifications is attested to by the fact that a partial list of scholarships and fellowships covered more than 100 pages in the Cap and Gown Day Convocation program of May 24, 1962, for the Minneapolis and St. Paul campuses.

Opportunities for students to advance their studies include a number of awards for study abroad. This year seven Minnesota students received Fulbright awards. An additional 38 students received SPAN scholarships sponsored by the Student Project for Amity Among Nations, and supported by student groups, businesses and organizations, and private donors.

Graduate enrollment at the University increases each year and is, fortunately, accompanied by an increase in the number of fellowships offered. In 1961-62, there were, for example, 64 students at Minnesota who held National Science Foundation pre-doctoral fellowships. Twelve graduating seniors were awarded Woodrow Wilson Fellowships in various fields. There were 53 Fellows under the National Defense Education Act, in fields which had been selected by the Office of Education. These, and the many other fellowships awarded during the

Scholarships and Fellowships

year, help fill the need for highly qualified specialists in certain fields. However, there are other fields in which the need for specialists is not being met due to a shortage of fellowship funds that can be allocated by the University at its discretion. In the category of fellowship funds controlled by the University, there were only 14 pre-doctoral fellowships. Here it is pleasant to note that four of these came from a splendid new fellowship program in theater, supported by the McKnight Foundation, which brings the University into a promising relationship with the new Guthrie Theatre.

Faculty members are also aided by grants to expand their research programs, their teaching efforts, and their public service activities. During 1961-62, 16 faculty members received Fulbright awards for research and lecturing abroad. A number of faculty members were also engaged in research abroad or in the United States on Guggenheim Fellowships.

There are, in addition, a large number of faculty members engaged in teaching, research, and advanced study activities under grants from such sponsors as the United States Public Health Service, the Ford Foundation, the National Science Foundation, the American Council of Learned Societies, the Social Science Research Council, the Carnegie Foundation, the Rockefeller Foundation, and numerous others. The length of this report does not permit an individual listing of those sponsoring scholarships and fellowships. The result of their foresight and generosity will be of enduring value not only to our nation but to all the world.

FALL REGISTRATION for the 1961-62 academic year set a new record when 2,883 undergraduates and 33 graduates enrolled on the Duluth campus.

Additions to the physical plant enabled us to take a major step in moving the teacher education program from the old campus to the new. The new Concourse, connecting the Science Building, the Social Science Building, and the Kirby Student Center is now open. The new \$850,000 Education Building was dedicated on April 11, 1962, and the \$950,000 Industrial Education Building neared completion as the year ended.

The major curricular change was the authorization by the Board of Regents to confer the Master of Arts degree in English.

THE PERIOD, 1961-62, has been one of initiation, consolidation, and continuing growth for the University of Minnesota, Morris. In nearly every respect gains in the academic experiment at Morris have exceeded the anticipated development. In its second year, the University of Minnesota, Morris enrolled its first

University of Minnesota, Duluth

sophomores as 61 per cent of the 1960 freshmen returned to continue their educations.

With the increase in the number of students, new faculty members authorized by the 1961 Minnesota Legislature were added to the staff and a total faculty of 37 taught the 437 students in the fall quarter of 1961.

The addition of the sophomore year required the development of more than 100 new course offerings in the Bachelor of Arts program or in one of the 25 pre-professional curricula that have been established at Morris.

Specialty classrooms and laboratories were built to insure the use of the most modern teaching techniques. Special visual aid rooms, a reading skills laboratory, a language laboratory, and revision of the science laboratories were completed in 1961.

The cultural life of the surrounding area was enriched by newly developed activities of the University. Among these are a fine arts film series, a documentary film series, the University Artists Course Series, a concert series using the UMM Symphony Orchestra, a concert band, vocal groups and evening college courses.

University of Minnesota, Morris

RESEARCH PROJECTS of great significance are conducted by all University institutes, colleges, and schools. These projects are truly statewide, being carried on in laboratories on the campuses at Minneapolis, St. Paul, Duluth, and Morris; and, among other places, at the Agricultural Experiment Stations scattered throughout the state, the Rosemount Research Center, the Cedar Creek Natural History Area in Anoka and Isanti Counties, the Cloquet Forest Research Center, the Fruit Breeding Farm and the Arboretum at Excelsior, and the Lake Itasca Forestry and Biological Station.

RESEARCH

Here again it would not be possible to list the individual funds, grants, organizational and personal contributions that make this research possible. Mention is made of many of them throughout this report. These moneys help the research staff make the University of Minnesota a better educational institution, help save lives, alleviate suffering, and contribute to the betterment of human existence.

The following is only a small sample of the work done by the University of Minnesota research staff during 1961-62.

THE COLLEGE OF MEDICAL SCIENCES

During the past year the Cardiovascular Clinical Center program was activated, with generous support from the Federal government's National Institutes of Health. This program has permitted important studies of heart function in normal subjects and in heart patients, before and after treatment, and the study of various fundamental phenomena that relate to heart function.

Exciting studies made by the departments of Pediatrics, Surgery, and Microbiology have furthered understanding of immune processes. Studies

carried out here will undoubtedly lead to substantial progress toward the successful transplantation of vital organs.

Important new techniques for the diagnosis of unusual bleeding disorders, of rheumatic fever, and of acute nephritis have been developed.

Clinical studies of genetic problems have been facilitated by the establishment of a Genetics Laboratory in the Department of Laboratory Medicine.

In the Department of Radiology a technique has been developed for separating the various types of cells in the bone marrow. This makes possible a study of the ability of an individual cell to protect against the damaging effects of radiation.

UNIVERSITY HEALTH SERVICE

Ten major research projects include a study to investigate and design linen chutes that will reduce the spread of bacterial infections in hospitals.

BUREAU OF INSTITUTIONAL RESEARCH

The Bureau collected and analyzed data connected with higher education on an international as well as a regional basis.

Studies of immediate concern to the planning and operation of the University continued at all times.

Working closely with faculty and administrative groups, the Bureau carried out such studies as a survey of faculty attitudes toward closed-circuit television in University instruction, an analysis of student drop-outs, and an analysis of instructional costs of various teaching units.

SCHOOL OF DENTISTRY

A General Research Support Grant made by the U.S. Public Health Service has led to the establishment of a laboratory in Microbiology. This laboratory will make possible a much-needed study of problems relating to bacteriology and its effects on both dental decay and periodontal problems.

COLLEGE OF VETERINARY MEDICINE

Doctors in the field of Veterinary Medicine have further developed the milk ring test procedure relative to the eradication of brucellosis. It was here that this test was originally developed, a procedure that has saved the state \$70,000 annually on ring test sample collections.

INSTITUTE OF AGRICULTURE

Researchers have discovered that certain varieties of wheat may vary as much as fourfold in the amount of strontium deposited. This discovery means that varieties of crops may be especially selected for low uptake of radio-active fallout.

Experiments have produced the first calf resulting from transplanting an ovum from one cow to another. This is not only an addition to knowledge of the physiology of reproduction, but also points toward a practical means of increasing the potential number of high-producing offspring.

Scientists have produced an acceptable low-fat cheese.

FACTS AND FIGURES

1961-1962

ENROLLMENT IN COLLEGES

General College	3,746
College of Science, Literature, and the Arts	11,209
University College	46
Institute of Technology	3,492
College of Agriculture, Forestry, and Home Economics	2,140
College of Education	3,202
School of Business Administration	803
College of Pharmacy	208
Law School	338
College of Veterinary Medicine	174
School of Dentistry	461
College of Medical Sciences	1,262
Graduate School	5,839
Duluth Campus	3,218
Morris Campus	530
Summer Session	12,938
	<hr/>
	49,606
	<hr/>
Less duplicates*	7,992
	<hr/>
	41,614

ENROLLMENT IN EXTENSION DIVISION

Evening and Special Classes	16,051
Short Courses	2,239
Correspondence Study	9,289
Center for Continuation Study	10,451
	<hr/>
	38,030
	<hr/>
Less duplicates*	697
	<hr/>
	37,333

ENROLLMENT IN AGRICULTURAL SHORT COURSES

Institute of Agriculture, St. Paul	10,534
Northwest School of Agriculture and Station, Crookston	590
West Central School and Station, Morris	2,125
North Central School and Station, Grand Rapids	336
Southern School and Station, Waseca	12
	<hr/>
	13,597

ROTC COMMISSIONS CONFERRED

For the U.S. Army	50
For the U.S. Navy	27
For the U.S. Air Force	20
	<hr/>
	97

**ENROLLMENT IN SUB-COLLEGIATE
DIVISION**

Northwest School of Agriculture, Crookston	306
West Central School of Agriculture, Morris	76
North Central School of Agriculture, Grand Rapids	53
Southern School of Agriculture, Waseca	240
University Schools, Minneapolis (High School, Elementary School, Kindergarten and Nursery)	713
Laboratory School, Duluth	218
	<hr/>
	1,606

TOTAL ENROLLMENT 94,150

LESS DUPLICATES* 3,425

Total Number Who Received Univer-
sity Instruction in 1961-1962

90,725

* Individuals who have enrolled in more than one school or division during the year have been counted only once.

**DEGREES AND CERTIFICATES
GRANTED IN 1961-1962**

General Extension Division	51
General College	400
College of Science, Literature, and the Arts	973
University College	15
Institute of Technology	477
College of Agriculture, Forestry, and Home Economics	279
College of Education	733
School of Business Administration	278
College of Pharmacy	31
Law School	64
College of Veterinary Medicine	71
School of Dentistry	174
College of Medical Sciences	431
Graduate School	1,175
Duluth Campus	519
	<hr/>
	5,671
Non-Degree Certificates Issued by Schools and Colleges	459

SOURCES OF FUNDS

*General
Operations and
Maintenance Fund*

*Restricted
Funds*

*Auxiliary
Enterprise
Fund*

FROM THE STATE

State Appropriation

\$26,867,808.04

For the general support of instructional, research, and administrative departments, and maintenance of instructional buildings and grounds.

Indigent Patients

\$ 3,898,154.91

Cost of the indigent patients at the University of Minnesota Hospitals—cost shared by counties.

Special Projects and Research

4,042,705.98

Includes appropriations that enable the University to perform special projects requested by various interested groups of citizens of the State such as Agricultural Extension, Beneficiation of Manganiferous Ores, General Agricultural Research, Medical Research, Psychopathic and Child Psychiatric Hospitals, Hospital Rehabilitation Center, Livestock Sanitary Board and many other programs.

STUDENT FEES

8,728,554.63

SALES AND SERVICES

5,332,014.05

6,336,633.81

Includes hospital receipts, dental infirmary, sale of bulletins, agricultural products, receipts from the operation of University Theater, the Cancer Detection Center and other receipts.

SOURCES OF FUNDS

*General
Operations and
Maintenance Fund*

*Restricted
Funds*

*Auxiliary
Enterprise
Fund*

AUXILIARY ENTERPRISES

\$15,065,926.00

Includes income from such activities as Dormitories, Dining Halls, Married Student Housing, Printing, Laundry, University Press, Concerts and Lectures, and Health Service.

FEDERAL GOVERNMENT

2,699,858.78

For Instruction, Agricultural Research and Extension.

TRUST FUNDS

23,140,602.50

Gifts, Grants and Research Contracts from Federal Government, Business and Industry, Foundation, Individuals and others, and income from Endowment.

INTERCOLLEGIATE ATHLETICS

1,687,180.03

Includes Duluth.

Total Receipts

\$40,928,376.72

\$40,117,955.98

\$16,753,106.03

BALANCE—JULY 1, 1961

3,026.71

\$40,931,403.43

\$40,117,955.98

\$16,753,106.03

USES OF FUNDS

*General
Operations and
Maintenance Fund*

*Restricted
Funds*

*Auxiliary
Enterprise
Fund*

ADMINISTRATION

\$ 1,252,936.52 \$ 95,409.85

The expenses of the offices of the President, the Vice Presidents, the Business Office, the Office of Civil Service Personnel, the Storehouses and other general administrative offices.

GENERAL EXPENSE

4,991,917.11 75,303.78

The expenses of the offices of the Dean of Students and Admissions and Records, the cost of staff insurance and retirement, intercampus bus, truck service, general bulletins and publications, convocations, and other services of a general expense character.

INSTRUCTION AND DEPARTMENT RESEARCH

20,598,984.77 3,982,548.01

The expense of college instruction and departmental research, including instructional trust funds.

LIBRARIES

1,421,115.49 106,462.37

Does not include Law Library or Morris Library.

USES OF FUNDS

*General
Operations and
Maintenance Fund*

*Restricted
Funds*

*Auxiliary
Enterprise
Fund*

ORGANIZED ACTIVITIES RELATING TO INSTRUCTIONAL DEPARTMENTS

1,005,241.72

10,394,120.12

Includes the cost of operating University Hospitals, University High School, University Elementary School, the University Theater and other related activities.

EXTENSION AND PUBLIC SERVICES

2,212,402.74

4,994,400.45

Includes activities such as the General Extension Division, Agricultural Extension, Museum of Natural History.

BUDGETED AND SPONSORED RESEARCH

2,461,542.96

17,220,830.73

Includes the Agricultural Experiment Stations, the Mines Experiment Station, and all sponsored research.

PHYSICAL PLANT OPERATIONS

6,072,717.50

23,156.31 \$ 289,334.27

The expenses of maintaining and operating the buildings and other improvements on all campuses.

USES OF FUNDS

*General
Operations and
Maintenance Fund*

*Restricted
Funds*

*Auxiliary
Enterprise
Fund*

AUXILIARY ENTERPRISES

14,686,273.51

Includes expenditures for such activities as Dormitories, Dining Halls, Married Student Housing, Printing, Laundry, University Press, and Health Service.

STUDENT AID

2,100,140.06

Includes Fellowships, Scholarships and Prizes.

TRANSFERS AND ADJUSTMENTS

912,485.72

1,125,584.30

1,777,498.25

Total Expenditures, Transfers and Adjustments

\$40,929,344.53

\$40,117,955.98

\$16,753,106.03

BALANCE—JUNE 30, 1962

2,058.90

\$40,931,403.43

\$40,117,955.98

\$16,753,106.03

□ After 20 years of investigation, the cause of deterioration of grain stored in elevators has been discovered, thus solving a problem which in the past has caused considerable financial loss.

INSTITUTE OF TECHNOLOGY

It is not possible to highlight all of the areas of research in the Institute of Technology that have ensured continuing support, but it is noteworthy that in six years Federally supported research has been doubled to its current level of six and one-half million dollars a year.

□ One of the many notable research developments in the Institute of Technology this year has been the rapid expansion of the space physics program, making the University one of the leaders in space physics research. During the past year, experiments designed by a University scientist were aboard some of the most successful satellite flights. Equipment currently in preparation includes experiments for an equatorial geophysical observatory and a zodiacal light monitoring experiment for the Orbiting Solar Observatory II, which will make observations of the sun.

□ The Limnological Research Center, which is concerned with the study of the composition of lake water and sediment, began the year in a joint program with the University of Michigan which is directed to the exploration of the bottom sediments of western Lake Superior.

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

One of the most significant recent trends in the liberal arts has been the burgeoning of research activity in almost every area, from the life sciences through the social sciences and into the humanities. During the past year the College of Science, Literature, and the Arts was awarded research grants for 124 projects, totaling almost a million dollars. Other intensive research, such as studies of problems in language teaching with modern laboratory equipment, experiments with the use of "teaching machines" and a computer study of linguistics, was carried on without the benefit of grants. Listed below are a few of the grant-financed research activities conducted by the Arts College.

□ Research sent faculty members on classical archaeological exploration in Southern Greece, geological study in Antarctica, communications research in South America, and botanical research in southeast Asia.

□ The Minnesota Center for Philosophy of Science continued its research in the philosophy, logic, and methodology of physics and of psychology. The Center's activities included the preparation of a number of notable publications including the third volume of *Minnesota Studies in the Philosophy of Science*, "Scientific Explanation, Space, and Time."

□ During the 1961-62 academic year, 14 important studies were in progress in the Center for Personality Research. They included research in the treatment and prevention of juvenile delinquency; an evaluation of psychiatric therapies; and the development of a standardized personality inventory for use with children.

□ The Laboratory for Research in Social Relations focused a substantial portion of its attention upon social comparison, or reference group, processes.

Laboratory experiments were carried out to discover determinants of an individual's tendency to select certain other persons as points of reference for purposes of personality and ability self-evaluation. Studies also sought conditions under which individuals reveal or conceal, in interpersonal relations, aspects of their own self-concept. The psychology of communication was another research area explored at the Laboratory.

SCHOOL OF BUSINESS ADMINISTRATION

Under a grant from the U.S. Small Business Administration, a major research project resulted in the publication of nine volumes dealing with various aspects of small business activity.

The Industrial Relations Department and the Industrial Relations Center continued their programs of teaching, research and service and produced many publications to describe research findings. Major projects included studies of work adjustment, management-development, labor marketing, and collective bargaining.

As part of a trend in strengthening the University's role in international education, a School of Business Administration professor was given a leave of absence to assist the governments of Rhodesia and Nyasaland in industrial surveys.

The Upper Midwest Economic Study, a joint undertaking of the University of Minnesota and the Upper Midwest Research and Development Council* covers major segments of economic activity and related urban planning in the Ninth Federal Reserve District. The enormous task of research and publication of reports is a project of a staff under the direction of a member of the faculty of the University Department of Economics. Seven other universities and colleges of the region, the Federal Reserve Bank of Minneapolis and the Twin Cities Metropolitan Planning Commission are cooperating in phases of the research. The program is financed by grants and contributions from the Ford Foundation, the Hill Family Foundation, the Committee for Economic Development, and the Council. The Council's activities will be based in large part on facts developed by the economic studies. Reports published by the Upper Midwest Economic Study in 1962 include: *Upper Midwest Agriculture: Structure and Problems; Migration and Population Growth in the Upper Midwest: 1930-1960; Employment and Earnings in the Upper Midwest: 1950-1960; Upper Midwest Agriculture: Alternatives for the Future*; and technical papers on *Upper Midwest Agriculture: Structure and Problems (Statistical Supplement); The Geographic Impact of the Federal Budget; Upper Midwest Commodity Flows*.

COLLEGE OF EDUCATION

In cooperation with the State Department of Welfare and the Minnesota Association for Retarded Children, a laboratory for research on psycho-educational processes of retarded children was established at the Cambridge State School and Hospital.

* The Upper Midwest Research and Development Council is a non-profit corporation of businessmen, organized to provide leadership for a program to help stimulate the economic growth of the region.

□ A five-year study for the improvement of materials for teaching English involves cooperation of College of Education and SLA faculty members with the staff of the State Department of Education and with area secondary school and college teachers. Called *Project English*, the study is financed by a grant of \$250,000 from the Cooperative Research Department of the U.S. Office of Education.

□ The Bureau of Field Studies and Surveys completed survey projects in 15 school systems. It also completed a special study of the heating and ventilation of school buildings, financed under a grant from the Johnson Service Company.

□ Research on creative talent, conducted by the Bureau of Educational Research, has attracted international interest and cooperation. Many of the 3,000 requests which the Bureau receives annually for its materials and reports relate to the creativity studies.

□ Research by the staff of the Student Personnel Office and the Student Teaching Department, financed largely by U.S. Office of Education grants, has been directed toward improving the selection and education of prospective teachers.

□ The department of Agricultural Education is conducting research on many aspects of teaching in vocational agriculture. Faculty members have also worked closely with the Minnesota Young Farmer Development Committee, establishing pilot programs in eight communities to study relations between community economic development and the establishment of young people on adequate farm business units.

□ In the Institute of Child Development, research funds totaling \$110,300 were held by staff members for a vast variety of projects dealing with child behavior. The Institute has become a leading center for research in child psychology.

THE GRADUATE SCHOOL

The role of the Graduate School is to assist the graduate faculty in its traditional activities of research and teaching. The Graduate School also administers certain funds coming to the University for the support of individual faculty research projects, including such special legislative appropriations as the General Research Fund, the Minnesota Institute of Research, and the Medical and Cancer Research Fund. From these funds 238 individual grants were made in amounts ranging from under \$50 to more than \$5,000 to faculty members in literally every college of the University—including the Duluth and Morris campuses. They are the seed money by which the value of new projects can be explored preliminary to submitting them to foundations and Federal agencies for sponsorship.

The Graduate School also has direct administrative responsibility for the Graduate Research Center, the Mayo Foundation for Medical Education and Research, the Dight Institute for Human Genetics, and the Hormel Institute, all respected centers of scholarship.

The Graduate Research Center

This center represents a revision of the former Social Science Research Center. It now extends to faculty members in all areas its services in the discussion

and formulation of research programs, and its aid in seeking needed financial support.

The Mayo Foundation

The Mayo Foundation for Medical Education and Research employs the clinical, laboratory, personnel, and financial resources of the Mayo Clinic in Rochester for an extensive research program and conduct of one of the largest programs of graduate education in the world. Enrollment of graduate medical students has now exceeded 600 and the University roster in Rochester is 312. These faculty members are without salary from University funds, except for 39 members who derive part of their salary from income on Mayo Foundation endowment funds held by the University.

The Dight Institute

The Dight Institute for Human Genetics, on the Minneapolis campus, continued its long established studies and provided counseling service on problems of a genetic nature to anyone requesting it.

The Hormel Institute

This institute conducts research in metabolism and fatty acids. The increased activity and enlarged program of the Institute show the first fruits of improved facilities made available in 1960 when a new building was constructed with funds given by the National Institutes of Health and the Hormel Foundation. The Institute is an international center for the supply of fatty acid samples for research workers.

BESIDES SERVING AND EDUCATING the large student body, the University of Minnesota carries its service and educational facilities to the people of the state. Public service is performed by every department. A few examples follow. They can be no more than a spot sampling of the total picture of the University of Minnesota's service and public education programs.

PUBLIC SERVICE AND EDUCATION

INSTITUTE OF AGRICULTURE

The Institute of Agriculture serves as a major source of information on topics of interest in home economics, forestry, agriculture, veterinary medicine and related industries. During the year the Institute published hundreds of pieces of literature, both technical and general, and prepared almost 2,000 news releases. More than 5,500 movies and slide sets were loaned by the Institute for use by schools and adult education programs. Two new movies and six new slide sets were produced, and 1,000 pieces of art work were completed for use in teaching or publications. In addition, the Institute produced and broadcast 520 live programs over KUOM, taped 225 additional programs for regularly scheduled use on nearly 30 stations and arranged for guests on more than 300 commercial broadcasts. The staff conducted regular *Town and Country* programs over KTCA-TV.

AUDIO-VISUAL EXTENSION SERVICE

This service provides instruction in the utilization of audio-visual materials and supplies such materials to educational institutions, community organizations, business and industry training centers, nurses training centers and many other groups and individuals throughout the state.

In 1961-62, the Service made 65,152 film bookings to 2,892 groups. It conducted 20 conferences and workshops with an attendance of 1,040. The Service also visited 178 schools, libraries and other training centers, and provided 900 tape dubbings of KUOM broadcasts.

MUNICIPAL REFERENCE BUREAU

The Bureau serves as headquarters of the League of Minnesota Municipalities and at the same time places the available University services at the disposal of citizens as well as officials interested in municipal problems. The head of the Bureau also directs the League and is a political science faculty member. The League and the Bureau, working together, answer inquiries and do research on municipal problems, provide special consulting service, prepare printed materials and sponsor, jointly with the University, short courses for municipal officials.

STATE ORGANIZATION SERVICE

Non-profit organizations concerned with adult education use this service to perform their administrative tasks, thereby releasing the time and energies of their leaders for more important duties. In 1961-62 it served 22 member organizations with more than 50,000 individual members, and in so doing processed 686 major administrative orders.

WORLD AFFAIRS CENTER

Administered by the State Organization Service, the Center provides educational activities ranging from organizing the United States Department of State Briefing on Foreign Policy to the planning of a single program for a local PTA. The Center's publications, conferences, seminars, lecture series and correspondence courses, combine to increase the level of citizen interest and understanding of foreign policy issues.

MINNESOTA GEOLOGICAL SURVEY

This department, under the College of Science, Literature, and the Arts, does research and public service for the State of Minnesota, for other departments of the University and for civic agencies. New projects started this year emphasized systematic geologic mapping needed in the state to provide the knowledge from which a more diversified economy can grow.

COFFMAN MEMORIAL UNION

The use of Coffman Union facilities for service in the interest of both community and University is illustrated by the fact that 10,000 people took part in 67 non-student conferences and meetings during the year. Exhibits in Coffman Union also attracted widespread community interest, especially the exhibition of Russian medical equipment, which was viewed by approximately 150,000 persons.

COLLEGE OF VETERINARY MEDICINE

Important to all people of the state is the College's diagnostic service and the examination of suspected rabid animals. A total of 6,660 farm animals was examined during the year at the College's Diagnostic Laboratory. Additionally, 139,200 bovine serum samples were tested for brucellosis. The branch laboratories in Willmar, Detroit Lakes and Rochester conducted 897,896 tests for the control of pullorum paratyphoid disease in turkeys during 1961-62.

UNIVERSITY OF MINNESOTA HOSPITALS

The University of Minnesota Hospitals are renowned for their outstanding staff, the quality of medicine practiced and the development and use of dramatic new medical techniques.

The greatest number of patient days of hospital care in the history of the hospitals was given during this year. 15,542 individuals were admitted as in-patients, 124,940 as outpatients and 4,084 treated at the Physical Medicine and Rehabilitation Center.

SCHOOL OF BUSINESS ADMINISTRATION

One of the major community service activities of the School of Business Administration is the frequent publication of studies of current business problems and trends. Prepared by faculty members who are experts in their fields, these studies offer practical solutions to business problems and help predict future growth and market potential. The School's *Minnesota Business News*, sent without charge to 10,000 people, describes these publications and features articles on current topics of interest to the business world.

Among new service ventures during the year was the first Management Development Program, organized in conjunction with the Minneapolis Chamber of Commerce. The program consisted of five weekly sessions attended by 30 executives from Minneapolis firms. Plans call for the expansion of the program to a full-fledged management development center.

THE FACULTY AND ADMINISTRATIVE STAFF

No section on public service at the University can be complete without mention of the faculty and administrative staff. The honors they receive, the many distinguished books, articles and reports they write, their tireless work in research, their service to organizations small and large—all of these are quietly accepted by them as part of their daily lives, but the total becomes an impressive factor in determining the University's stature.

Examples can be given, such as the fact that this year a professor emeritus of the Geology department received the Roebling Medal of the Mineralogical Society of America, the most distinguished award in the field of mineralogy; another served as a member of the President's Committee on Employment of Physically Handicapped; still another was a member of the President's Panel on Mental Retardation; and professors of the University of Minnesota Law School guided the complete revision of the Minnesota Criminal Code.

Members of every department are called upon daily to answer questions in response to telephone calls, letters and personal office calls.

Faculty and administrative staff are included in the membership of state, national and international commissions and committees, ranging in scope and purpose from the World Bank to the Governor's Committee on School Aids and Formulas.

At any one time there were at least 30 faculty members who were abroad as consultants and lecturers, for study or research or to attend scholarly and scientific meetings. Their work ranged all the way from studying voice in Vienna to doing botanical field work in Malaya, Thailand and other countries; from serving as consultants in public recreation in the Philippines, Singapore and Borneo to doing pediatric research in Sweden.

The University of Minnesota is proud of its faculty and administrative staff and their record for performing public service and education.

THE UNIVERSITY OF MINNESOTA continues to present the variety and excellence of programs that have established it as the cultural center of a widening Upper Midwest region.

CULTURAL ACTIVITIES

MUSIC AND DRAMA

The University Artists Course, a division of the Department of Concerts and Lectures, presented 14 major concerts during the year by such outstanding performers as Eileen Farrell, Van Cliburn, the Goldovsky Opera, the *Artists* National Ballet of Canada, the Stratford Festival Players and the *Course* Andahazy Ballet Borealis.

The Spring Season of the Metropolitan Opera brought six operas for the enjoyment of thousands of persons who each year look forward to this exciting event. Sponsored by the University, the Minnesota *Metropolitan* Association, and an Upper Midwest committee of sponsors and *Opera* guarantors, the Spring Season of 1961 was the 18th consecutive season on this campus.

Each year the University's share of profits resulting from the opera presentation goes into the Special Cultural Projects Fund. Administered by the Department of Concerts and Lectures, the Fund this year was used to *Special* underwrite many excellent activities both for the benefit of the *Cultural* University community and the general public. Among these was the *Projects* Bach Festival, a series of Bach concerts and lectures presented annually in collaboration with the Bach Society of the Twin Cities.

Northrop Auditorium has been the home of the Minneapolis Symphony Orchestra since 1930, and as such has seen the reigns of such illustrious conductors as Henri Verbruggen, Eugene Ormandy, Antal Dorati and now Stanislaw Skrowaczewski. There is close cooperation between the University and the *Minneapolis* Orchestra. The 300-voice University of Minnesota Chorus is available for joint musical ventures. The University population forms a nucleus of musical sophistication that is open to the *Symphony* new and experimental. University students and faculty are *Orchestra*

offered special season ticket rates, and 300 students serve as ushers. Thus the presence of the Orchestra on the campus enriches the cultural life of the Midwest and provides University music students with opportunities for study not found on any other campus in the world.

Matching the professional groups in enthusiasm are the University musical organizations. The University of Minnesota, Morris already has entertained at a convocation on the main campus with its Band and Glee Club, and the Morris Men's Chorus opened the 1962 Minnesota Day festivities at the Seattle World's Fair.

On the Duluth campus, the Bands, Chorus and Orchestra performed in many concerts throughout the year. The St. Paul Campus Chorus, made up of students

University Musical Organizations and townspeople, gave, among many other performances, concerts for the special convocations held on the St. Paul campus. On the Minneapolis campus, the Music Educator's Chorus is limited to students majoring in music education, but all other groups are open for participation by non-students. Among these groups are the four University Bands, the University of Minnesota Chorus, the University Symphony, the Men's Glee Club, the Women's Glee Club and the Opera Workshop. Those interested in music not suitable for large choruses may join the University Chamber Singers.

The University Theater ranks as a major attraction from the standpoint of both culture and entertainment. The Theater this year gave 208 performances to 68,761 people. The five major plays, performed in Scott Hall Auditorium, ranged in scope from George Bernard Shaw's *Captain Brassbound's Conversion* to Bertolt Brecht's *The Private Life of the Master Race*.

University Theater In addition, the Theater presented the Young People's University Theater for area public school children, and a special series of plays featuring original scripts. One of the most popular of the Theater's activities is the University Centennial Showboat, now a landmark at its mooring place on the Mississippi River, just below the Minneapolis campus. The 1961 Showboat cast played 101 sellout performances of *Bloomer Girl* during the eight weeks at the Minneapolis site and three weeks at Harriet Island in St. Paul.

LECTURES, CONFERENCES AND SPECIAL PROGRAMS

In 1961-62, almost every department of the University offered stimulating conferences and lectures of interest to persons in specific fields. In addition, 100 general-interest programs, including 30 scientific and advanced learning conferences, were open to the public at little or no charge.

The University Convocations, held at 11:30 every Thursday morning during the regular school year, attracted many off-campus guests to Northrop Auditorium. This year's convocations included such notable personalities as Carl Rowan, Sir Leslie Munro, James Lewis Morrill and Senator Eugene McCarthy together with attractions such as the Navy Band and the Ceylon Dancers.

Forty special lectures were highlighted by the presentation of Robert Frost who was given three standing ovations by an enthusiastic audience of more than 5,000. Also notable was the appearance of Dr. Enrich Schalscha of Germany and Henry Steele Commager.

Lectures

RADIO AND TELEVISION

Each year the University reaches thousands of people through its Department of Radio and Television.

KUOM, the oldest licensed station in Minnesota, provides a unique public service with its programs of classical music, the humanities, drama and current affairs. In answer to requests by listeners, KUOM during 1961-62, sent out nearly 2,000 transcripts of talks, reading lists, study guides and similar materials.

Utilizing the facilities of KTCA-TV, licensed to the Twin City Area Educational Television Corporation, the University presents television programs of significant educational and cultural value. Broadcasting from 9 to 10 o'clock, five evenings a week, the University of Minnesota Hour presents programs of educational and cultural value on a wide variety of subjects.

ART

Art exhibits play a large role in the cultural life on all of the University campuses. The Tweed Gallery, on the Duluth campus, continued to be the major center for exhibitions for the entire city. On the Minneapolis campus, the University Gallery, located on the third and fourth floors of Northrop Auditorium, attracted hundreds of visitors during a year of outstanding exhibits. *The 19th Century—125 Master Drawings* was one of the year's most important exhibitions. Art shows in the student center at the St. Paul campus drew large numbers of visitors. Even the young University at Morris began the nucleus of a gallery when a faculty member hung a few pictures in the corridors of one of the buildings.

THE UNIVERSITY PRESS

The University of Minnesota Press is known for its distinguished authors and the scope of its published works. In 1961-62, as in the past, a number of honors and awards were given to the Press' books and authors, and the Press, itself, received graphic arts citations for four of its books. Further recognition came when four Minnesota Press books were chosen by a panel of medical advisers for inclusion in the exhibit, *Medicine-USA*, which the United States Information Agency sent on a tour of the Soviet Union.

NATURAL HISTORY

More than 17,000 students, from all parts of the state, saw the exhibits at the Museum of Natural History during the year. In addition, the State Park Naturalist program, in cooperation with the Division of State Parks, reached 13 state parks. Five naturalists maintained museums, conducted trail walks, evening programs and auto caravans and established and maintained self-guiding nature trails. A travelling "library" of small portable museum exhibit cases visited schools and state parks. The Museum's research program made splendid progress with the assistance of grants from the National Institutes of Health, the National Science Foundation, the Atomic Energy Commission, the

Hill Family Foundation, the Agricultural Experiment Station, the University of Minnesota Graduate School and contributions from other friends of the Museum.

STUDENT ACTIVITIES

IN THE AREA OF STUDENT ACTIVITIES, the size of the University is an advantage. For only in such a large school could there exist a diversity that guarantees something for everyone.

STUDENT AND ALUMNI ACTIVITIES

Students this year could choose membership in any of 400 organizations. They could take an active part in University policy making through participation in student governing boards, administrative committees or senate committees. They could act, sing, paint, dance, or play a musical instrument with others of like interests. They could write for one of the student publications. A large number of campus religious organizations exist, providing opportunities for worship, study and understanding. A dozen political groups provided ample area for students to work for the type of government they believed best.

The maturity of the student body was demonstrated in ways too numerous to list. Following are a few examples.

The *Minnesota Daily* reflected keen student awareness of local and international as well as campus affairs.

Student groups invited and listened to 170 outside speakers, including 72 on religious and 46 on political topics.

The University Student Panel of Americans, representing various faiths, races and national backgrounds, spoke to nearly 3,000 persons at 40 different civic, educational and religious organizations.

By the end of the year, all student organizations had removed unacceptable discriminatory clauses from their constitutions.

During the year 180 student organizations carried on 852 service projects of all kinds and raised \$55,688 for charitable purposes. Profits from campus-wide events were used for University scholarship funds, the Kenny Rehabilitation Institute, the United Fund, the Committee on Friendly Relations Among Foreign Students, the National Scholarship Service and Fund for Negro Students, the World University Service, and Christmas Seal and Cancer Drives.

Other contributions by student organizations included funds for foreign student scholarships, the Curative Workshop, the Institute of Logopedics, the Frontier Nursing Service, CORE, the Minneapolis Association for Retarded Children, the Variety Club Heart Hospital, the Indian Affairs Commission and CARE. Several organizations raised money to send crippled or underprivileged children to summer camps or to "adopt" a foreign child, and others collected clothing for Minnesota Indians. Hundreds of books and professional journals were collected for Asian universities.

Members of 18 sororities and 27 fraternities took part in Greek Week social service projects. Students visited hospital patients, cleaned and painted walls and scrubbed floors at four local institutions, assembled materials at the Ramsey County Red Cross Blood Center, and arranged to have a well-known group of entertainers perform at the Kenny Institute.

FOREIGN STUDENTS

There were 1,742 foreign nationals, representing 82 countries, studying at the University during the past year. Turbaned heads, sheer print saris and lovely oriental garb lent a cosmopolitan air to the campus.

More important was the distinct cultural contribution made by these students through classroom participation and social and service groups. Two new programs involving foreign students were instituted by the Minnesota Student Association's International Affairs Commission. One of these is the panel *Religions of the World*, which gives any interested group a chance to hear foreign students explain their religious beliefs. The other program is the panel *Foreign Students Speak Out*. Here those foreign students who are active in their own country's student governments speak on questions of world concern.

The University acted in all possible ways to help make the stay of the foreign student at Minnesota a happy one. Specialized counseling was provided in the areas of academic adjustment, health, United States and foreign government regulations, cultural adjustment and language problems. The Federal government's Agency for International Development selected the University of Minnesota Foreign Student Advising Program as a model program for universities and communities.

SERVICE TO THE STUDENT

At no time did students find the University too large to provide personal service to anyone who requested it. Through the Office of the Dean of Students, all new students were introduced to the University through the Orientation Programs. They were informed of the various teaching methods used at the University and were instructed in appropriate study methods.

SPECIALIZED COUNSELING

The Office of the Dean of Students also provided specialized counseling to 2,420 students concerned with vocational choices and other personal problems. Five hundred and six students were given professional assistance in remedial study skills. Nine hundred and twenty-two students received speech and hearing therapy and 8,488 received speech screening examinations. More than 5,000 were assisted in finding living accommodations.

FINANCIAL AIDS

Financial assistance throughout the year was given to 2,488 students through loans averaging \$310 and to 1,731 students through scholarships averaging \$338. Many others received financial counseling.

HEALTH

The health needs of the University community are met by the University Health Service. The program for prevention and care of illness for the individual student includes complete health examinations, outpatient medical care, and hospitalization when needed. During this year 15,433 complete medical examinations were performed at the Health Service. 114,554 visits were made to the

Health Service on the Minneapolis campus by students seeking medical attention. Both of these figures were all-time records despite the fact that there was no epidemic during this period.

THE STUDENT UNIONS

Coffman Memorial Union, the St. Paul Student Center, the University Village Union for married students and the Kirby Student Center in Duluth continue to enjoy great popularity as the main student meeting and recreation buildings. In addition, the student unions provide programs which this year have been expanded to include a wider range of culturally stimulating events.

Programs of music, lectures and exhibits are being attended by more people than ever before. Such new programs as the "Meet the Prof" series give the professor of extra large classes an opportunity to have coffee and to visit with his students.

Another type of program expansion took place at the University Village Union which established the Playcenter Nursery Center to enable the parents of small children to participate in more cultural and curricular activities.

THE ALUMNI

Graduates of the University are encouraged to become members of the Minnesota Alumni Association, which has its headquarters in Coffman Memorial Union. The Association is the coordinating group through which graduates work toward strengthening the University.

Minnesota alumni, through contributions to the University, annually help young students in their efforts to get a college education. This year nearly 90 outstanding high school students were provided with scholarships made possible by alumni contributions.

During the year the University, together with the Minnesota Alumni Association, presented the Outstanding Achievement Award to 22 alumni and the Alumni Service Award to six. These are among the highest awards bestowed by the University.

1961-62 WAS A YEAR OF CONTINUING GROWTH and experiment. Changes were made where conditions called for new approaches, and proven techniques and policies were strengthened. The University mourned the death of two members of the Board of Regents and of a former Regent. Three distinguished men became new members of the Board.

NOTABLE EVENTS

EDWARD B. COSGROVE

The death of Edward B. Cosgrove, on January 6, 1962, ended a long career of public service. A member of the Board of Regents from 1955 to 1961, he was chairman of the board of the Green Giant Company of LeSueur, Minnesota, and a director of numerous industries. Mr. Cosgrove had served on many

civic and governmental organizations including the Business Advisory Council of the U.S. Department of Commerce, the Nutrition Foundation and the Committee for Economic Development. He had been a recent recipient of the University's Outstanding Achievement Award which is given to alumni who have won distinction in their field.

RAY J. QUINLIVAN

The death of Ray J. Quinlivan, on October 12, 1961, ended 26 years of service as a member of the Board of Regents. Mr. Quinlivan, who had been engaged in the practice of law in St. Cloud for almost 40 years, had served 10 years as a member of the State Legislature and a number of terms as St. Cloud's city attorney. In 1935 he became a member of the Board of Regents.

On September 22, 1950, Mr. Quinlivan's associates on the Board elected him First Vice President and Chairman. His selection as Chairman showed the respect in which his fellow Regents held his logical mind, his vast patience, and his incisive ability to analyze and resolve problems connected with and beyond the University community.

JAMES FORD BELL

A sense of responsibility and obligation toward life and the desire to "put something back" was the philosophy behind the generous gifts made to the University of Minnesota by James Ford Bell. A Regent of the University from 1939 until his death on May 7, 1961, Mr. Bell, together with the late Fred B. Snyder, underwrote the construction of Coffman Memorial Union during the trying financial period of the 1930's. Mr. Bell financed the major part of the University's Museum of Natural History and contributed many specimens and exhibits to that museum's collection. He also provided a magnificent room in the library to house his gift, a remarkable collection of books on the history of trade.

Founder of General Mills, James Ford Bell was internationally noted for the order he brought to the milling industry, for the research he initiated in many areas, and for his service to the food industry, to education, to the arts and to the United States Government.

NEW REGENTS

Three men, each of whom is distinguished by his record of public service, became new members of the Board of Regents. Bjarne E. Grottum, attorney and president of the First National Bank of Jackson, Minnesota, was elected by the Legislature to serve a six-year term on the Board. Fred J. Hughes, St. Cloud attorney, was appointed a Regent by the Governor of Minnesota to complete the term of the late Ray J. Quinlivan which expires in February, 1963. Otto A. Silha, vice president and business manager of the Minneapolis Star and Tribune, was appointed by the Governor to complete the term of the late James Ford Bell which expires in February, 1963.

REGENTS AWARD

The University of Minnesota Regents Award was presented to Charles Lesley Ames, St. Paul bibliophile, on December 6, 1961.

The presentation was made at an open house for the Ames Library of South Asia, a new unit in the University Libraries. The Ames collection, a gift to the University from Charles Lesley Ames, was installed on the fourth floor of Walter Library in July, 1961.

The Regents Award noted that Mr. Ames "has provided the citizens of Minnesota and scholars everywhere with a vital treasury assembled through his efforts, the Ames Library of South Asia. His visionary pursuits have enriched our state, its University and the entire realm of academic enterprise."

TUITION INCREASE

The University opened its classroom doors in the fall of 1961 to the largest student body in its history. In January of 1962, another great increase in enrollment meant that there were large numbers of students that had not been budgeted for. With tuition dollars covering little more than one-fourth of the cost of a Minnesota student's education, the University was forced to meet the remaining costs of providing instruction for these new students by temporarily diverting funds from other necessary instructional areas.

The University was then faced with the prospect of yet further increases in enrollment, and the need for replacing the diverted funds to prevent a permanent deterioration in the quality of instruction. The Administration and Regents reluctantly found that increases in tuition to meet minimal needs would provide the only immediate alternative.

These increases, ranging from \$27 to \$45 a year for most resident students and from \$60 to \$75 for non-residents, are effective as of the opening of the fall, 1962, quarter.

ADMINISTRATIVE CHANGES

A reassignment of major administrative responsibilities involving vice presidencies at the University was approved in March, 1962, by the Board of Regents.

Two purposes were involved. The first was to tie together various student personnel and University relationship functions and activities.

The second was to create a stronger coordination between the President's office and the deans and faculty in planning and developing educational programs.

The first of these purposes is being achieved by the addition of the appropriate responsibilities to the office of Vice President Stanley J. Wenberg, whose title of Vice President and Administrative Assistant was changed to Vice President, Educational Relationships and Development. The newer functions relating to educational plans and programs are being carried out by Vice President Malcolm M. Willey, whose title of Vice President, Academic Administration, remains unchanged.

To effect the administrative realignment, the Office of Admissions and Records, the Office of the Dean of Students, the Department of Student Unions, the Department of University Relations, and the University Health Service, all of which were previously under the administrative office of Dr. Willey, have been transferred to Vice President Wenberg.

Vice President Willey, in turn, is enabled to direct his attention toward

the main internal educational matters that involve the central administration. His work thus brings him into close relationship with the deans of the several colleges, and through them and through special University committees, with the faculty.

ADMINISTRATIVE CHANGES AT MORRIS

Since the inauguration of the college level program in 1960 of the University of Minnesota, Morris on the campus of the West Central School of Agriculture, the University and School have been under the direction of Superintendent and Dean Rodney A. Briggs. Beginning July 1, 1961, the two units were separated for administrative purposes. The West Central School and Station, where the School of Agriculture program gradually is being discontinued except for short courses, remained in the Institute of Agriculture under the direction of Superintendent Ralph E. Smith. Administration of the college became the sole responsibility of Dean Briggs, enabling him to give full time to the enterprise. Plant services, dormitories, and the dining hall on the Morris campus remained a responsibility of the Institute of Agriculture.

THE NEW SYMPHONY SHELL

On the evening of October 13, 1961, a new brilliance of sound filled Northrop Auditorium as the Minneapolis Symphony Orchestra gave a public performance using the world's first all-steel acoustical shell.

Until that date, complete orchestral perfection in Northrop was not possible because the auditorium's one million cubic feet make it almost twice the size of an ideal concert hall.

A wooden shell, constructed in 1953, had removed most of the building's sound deficiencies for recital and chamber music performances. However, the Symphony could not fit its 91 musicians into this structure. It was difficult for a conductor to hear all members of the orchestra adequately, and some orchestra members could not hear others. The audience had problems in hearing the music clearly, because certain tones did not carry to all parts of the auditorium.

Creating the new shell took many years of study, since any such device had to be portable to permit Northrop's stage to be cleared for the numerous University events held there. This was finally accomplished with the designing of a 34-ton steel shell which can be set up or folded and stored away in less than an hour. In addition, permanent plexiglas surfaces were attached to the ceiling of the auditorium on the audience side of the proscenium arch, forming an extension of the ceiling of the shell out into the hall.

Audience, critics and performers have been enthusiastic in their praise of the shell. World-famous violinist Yehudi Menuhin, who had appeared with the Minneapolis Symphony 13 times in Northrop Auditorium, declared the new shell to be a tremendous improvement. He said: "There is now a brilliance and richness of sound that was never present before."

ATHLETIC ACTIVITIES

The University enjoyed one of its greatest years in intercollegiate athletics, intramural sports and recreational activities. Seven hundred and eighty-six stu-

dents participated in the 11 of the intercollegiate sports recognized by the Big 10 Conference. Thousands of students participated in intramural games.

The biggest news in intercollegiate athletics came when the football team, after winning the national championship in 1960, was selected for the second year in succession to represent the Big 10 Conference in the 1962 Rose Bowl game. Minnesota defeated UCLA by a score of 21-3 before 100,000 people in Pasadena.

Duluth campus athletic teams won Minnesota Intercollegiate Conference titles in football, basketball and golf.

GREATER UNIVERSITY FUND ENDS

The Greater University Fund Board of Trustees at its meeting on May 17, 1962, recommended the dissolution of the Fund to the Board of Directors of the Minnesota Alumni Association and the University Board of Regents.

The action followed the recommendations of a professional study of fund raising at the University. The study group suggested establishment of a Minnesota Foundation, a non-profit corporation of the State of Minnesota, to raise large amounts of money through individual gifts, and the transfer of all alumni projects of the Greater University Fund to the Minnesota Alumni Association, with non-alumni projects going to the Department of University Relations.

During the 15 years of its existence, the Greater University Fund was the chief channel for annual giving and the only organized office at the University to give full time to the sole purpose of fund raising.

THE WEST BANK

Great hope for the relief of overcrowding at the University lies in the eventual completion of the West Bank area. Funds appropriated by the 1957 and 1959 legislatures financed the purchase of 17.5 acres of land and the construction of three buildings. The Social Science Building, the School of Business Administration Building, and a general purpose Classroom Building neared completion this year with classes scheduled for the area beginning fall quarter, 1962. The buildings are interconnected, and all will connect with the library planned for the West Bank.

West Bank classrooms explore new teaching techniques. Three case study rooms create a seminar-type atmosphere, using a theater-in-the-round seating arrangement with the instructor in the center. Swivel chairs allow students to swing around in order to face a speaker in any part of the room, thereby stimulating discussion among the students. Two large classrooms, one designed to hold 150 students and the other designed to hold 250 students, have sloping floors, special acoustical design, and other features to insure close contact between student and professor.

A two-level bridge connecting the East and West Bank areas will be completed by the fall of 1965. The lower level will be used for vehicles. The pedestrian level will be partially glass enclosed for comfort in bad weather. Classes will be scheduled with a minimum of bridge-crossing in mind.

This report attempts to present a brief picture of the University and its activities. Those wishing more detailed information will find the following publications useful:

University of Minnesota Biennial Report, 1960-1962

The Needs of the University of Minnesota (The Legislative Request, 1963-1965)

University of Minnesota: A Brief Summary of Financial Operations for the Year Ended June 30, 1962

Please address your request for these publications to the Department of University Relations, 213 Morrill Hall, University of Minnesota, Minneapolis, Minnesota 55455.