

MBG
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The President's Report, 1960



President (*until July 1, 1960*)

JAMES LEWIS MORRILL

Board of Regents (*on June 30, 1960*)

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TO THOSE WHO RECEIVE THIS PRESIDENT'S REPORT, 1960:

For some time now many people have felt that the University of Minnesota should issue, in addition to the heavily statistical biennial report, an annual report, designed to give a clear picture of the University's work during a fiscal year. This is the first such report. It summarizes the last year of the administration of President James Lewis Morrill, the year 1959-1960.

The result of many months of planning, this report has been long in production; many avenues have had to be explored, many decisions have had to be made.

When the funds for this report were allocated by the University, the report was envisioned as a printed publication, designed to be pleasing to the reader, and containing pictures suitable to the text; sufficient funds for this purpose were provided. But now, in this year 1961-1962, when the report is completed and ready for publication, we find ourselves in another period of financial difficulties. In every way the University of Minnesota is searching for ways to cut expenses, so that the doors may be kept open for the instruction of students.

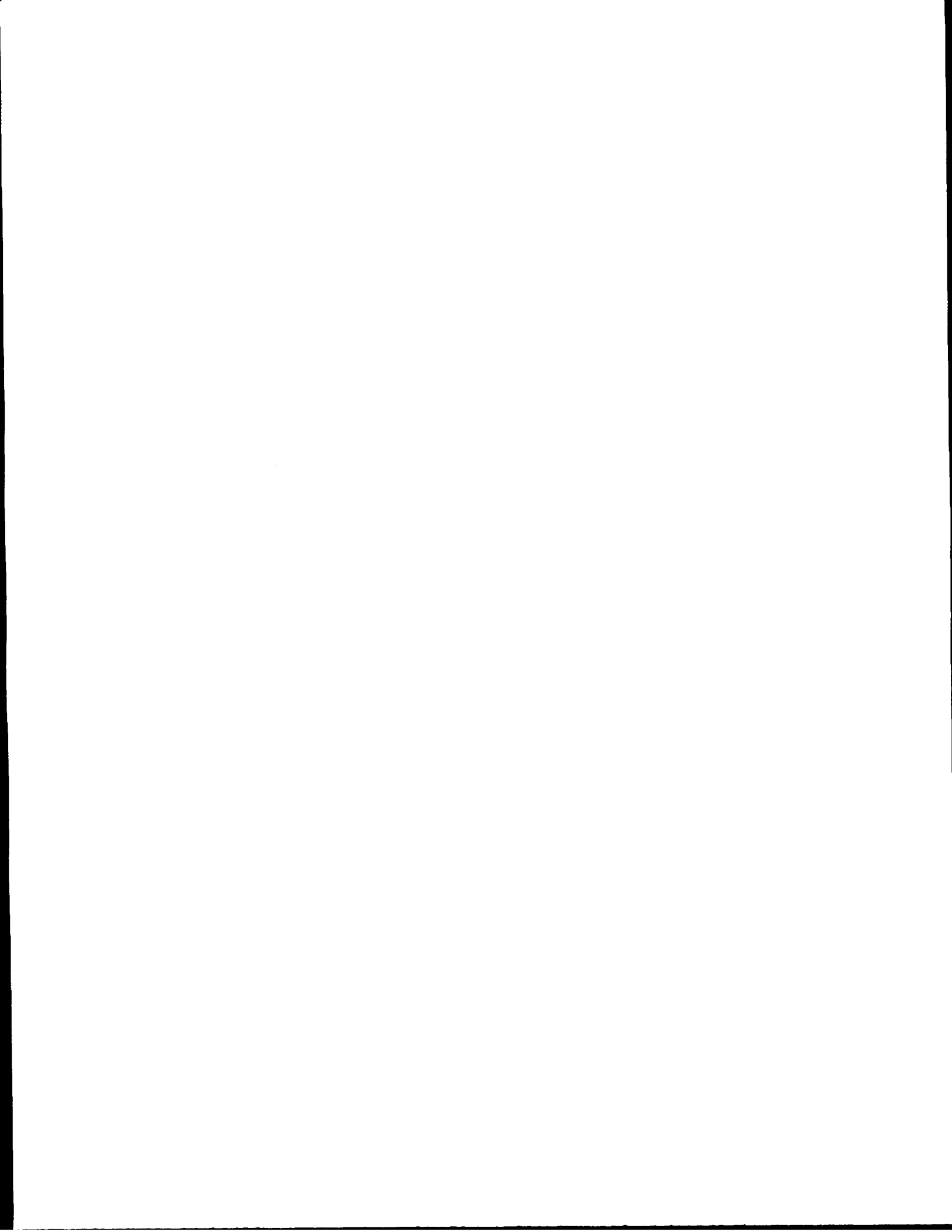
This report, then, will never be set in type, and the pictures that were to accompany it will not be used. This reproduction is taken directly from the typewritten copy, at a fraction of the cost of printing. The funds thus saved will be applied toward the production of subsequent reports.

To those who might ask whether any report is necessary, the answer must be made that the University of Minnesota does have a great story to tell. Until this, no single, annual publication was available to tell this story to the people who need most to know -- the people of the state of Minnesota.

PUBLIC INFORMATION COUNCIL
William L. Nunn, Chairman

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FOREWORD

With a change in the presidential administration of any major university, there are both cherished memories and great expectations. The expectations will be realized in the election of Dr. O. Meredith Wilson as president, and in the continuing confidence and support of the people of Minnesota.

As the retiring president, I would record the cherished memories, and the sense of "still-unfinished business."

Fifteen years are not long in the life of a university or a nation, but the fifteen post-World War II years have been crowded almost incredibly with change and epochal events. The following pages of this report, and those biennial reports of the earlier post-war years, reveal striking developments and perplexing problems. They speak for themselves and I shall not review them. The growth of the University in enrollment and in physical plant is evident on our campuses in Minneapolis, in St. Paul, in Duluth, and in Morris. Not so easily discerned or understood has been the expansion of research, teaching, and public service, in response to the vast new needs in almost every area of scholarship and science.



Support from the State and larger support from the Federal Government have enabled the University to keep pace in some measure with its new obligations and opportunities. National foundations, local foundations, business and industry in Minnesota, and private individuals, including alumni, have helped significantly as well. But we have been out-distanced by certain other state universities in the Midwest and in the nation in rising to the larger challenge of the times at the state, the national, and the international levels.

The key to success in response to this challenge is first of all the financial resources to recruit and retain a faculty of highest ability, performance, and potential. Buildings and equipment, space and facilities are indispensable, but competence and the sense of commitment to excellence and service come first.

It is people who make a university -- the people whose teaching and research earn the distinction in terms of which a university must be judged. During the decade and a half of my service we have lost many staff members whose continued presence on the campus would have augmented our strength. But we have also attracted to the University many brilliant scholars -- often young men and women -- whose subsequent careers have been highly productive. On balance, I believe sincerely that the University of Minnesota has moved forward.

It has been a gratifying experience to work with the Regents, with my administrative colleagues, and with members of the faculty individually and through committees, in the constructive process of helping to build a university that offers opportunity to the youth of the state, and through research and service builds itself into the very fabric of Minnesota and the nation.

For service to the state alone is not sufficient, and it is important to recognize the way in which the University has enlarged its sphere of service and influence. A university of the state, its responsibilities and its impact are now world-wide, as the relationship with the University of Seoul in distant Korea demonstrates. In truth, perhaps the most remarkable change in American higher education generally during the fifteen years I have been at Minnesota is the growing awareness that the colleges and universities of this country do have obligations that involve the remotest corners of the earth. It is good that Minnesota is a part of this vast educational expansion. The concept of higher education today embraces relationships and inter-relationships touching people everywhere, regardless of race or nationality. The role of the American university in world affairs has become a critical and demanding one in U.S. foreign policy.

Time and again, in addresses to Minnesota groups and in the presentation of University needs to the Legislature, I have expressed my deeply held conviction that the support of the University is the wisest and most productive investment the people of Minnesota can make in their own future.

In the so-called underdeveloped nations of the world, informed judgment and experience are now swinging strongly to the view that human resources are the crucial natural resources, and that their development through education must take priority over steel plants, dams, and the like. The history of the United States, with its commitment to and support of education beyond that of any other nation, teaches that lesson. Solely responsible as the University is, among all the institutions of higher education in Minnesota, for graduate and professional training and research, it must carry the largest burden in the building up of the economy and in the education of new leaders for the state. I hope that the people of Minnesota will continue to make this possible.

To the Regents whose encouragement and support, and whose devotion to their trusteeship, have been so meaningful to me; to the faculty whose far-visioned endeavors and cooperation have been the source of the University's integrity and productiveness; to the students whose instruction is our primary purpose, let me express my most grateful appreciation. For my successor sincerely I wish the same rewarding experience that has been mine in assisting as best I could "the advancement of learning . . . the search for truth . . . the instruction of youth and the welfare of the state." These are the high aims carved in stone on the face of the great Northrop Memorial Auditorium in which, every year, incoming students are welcomed, and outgoing graduates are summoned to useful lives.

f. L. Merrill

TEACHING

Teaching is the primary function of the University of Minnesota. The University taught 87,596 students from July 1, 1959, through June 30, 1960. These students, representing an increase of 3,376 over the previous year, were enrolled in the collegiate programs of the Minneapolis, St. Paul, and Duluth campuses, in the Schools of Agriculture and other sub-collegiate schools throughout the state, and in the short courses conducted by the Office of Agricultural Short Courses and the General Extension Division.

The largest number of students, 36,923, was enrolled in the University's day-school, collegiate program. Some 5,958 were entering freshmen, 94 per cent of whom came from Minnesota high schools. Again, some 1,112 were foreign students from 78 different countries. Charts on enrollment, and on the 5,796 degrees awarded, 608 certificates granted and 129 Reserve Officers Training Corps commissions conferred during this year can be found in the "Facts and Figures" section of this report.

In spite of these overwhelming statistics, learning is in the last analysis an individual process, dependent upon dedicated scholars and inquiring minds. And in spite of crowded classroom areas and inadequate faculty salaries, the University has been fortunate so far in securing and

maintaining well-qualified and nationally recognized teachers. These faculty members have done much, and often at great personal sacrifice, to develop significant courses during a year of financial difficulties. During the year 1959-1960 the three campuses had to make many economy adjustments, reducing both teaching facilities and services to meet the demands of a maintenance appropriation falling \$5,917,015 below the \$54,985,196 Legislative request made by the Regents for the 1959-1961 biennium.

University of Minnesota teaching programs continued, nevertheless, insofar as available funds and facilities permitted, to foster the best education possible for the individual student. Courses were taught and research was carried on by 1,515 full-time and 515 part-time budgeted faculty members, assisted by 700 teaching, research, administrative and clinical fellows. These teachers and scientists were aided by nearly 6,000 non-academic, civil service staff members, a number of whom were students working part-time.

The University, therefore, although unable to meet certain of the needs and new challenges facing all major higher educational institutions today, endeavored to maintain its present program of teaching, research, and public service.

Furthermore, the University was enabled to expand some programs and to develop new ones to meet new challenges through the generosity of the federal government, private donors and agencies, business, industry, and the professions.

Some of the best indications of the support and encouragement given by the people of Minnesota are the contributions which made it possible for the University to build the Masonic Memorial Hospital, the Variety Club Heart Hospital, the Tweed Gallery, the Mayo Memorial Building, and the Veterans of Foreign Wars Cancer Research Center, and to endow a research professorship in heart disease through contributions of the American Legion and its auxiliary posts all over the state. Another significant contribution was made during the year 1959-1960 by the citizens of Morris. They voluntarily formed a West Central Educational Development Association to raise money for the new collegiate campus. The region which includes this town of 4,200 people donated more than \$56,000 to share initial expenses required for equipping laboratories and increasing library resources.

All of these contributions by the people of the state have a direct and indispensable bearing upon the teaching programs of the University. For the University's teaching, research, and public service programs are dependent upon one another, each contributing to the fulfillment of the other. Research contributes much to the teaching program, especially in the

graduate area. And surely research and teaching are an integral part of the public service program. Research results in more healthy communities, in communities better equipped physically and mentally to cope with the problems and crises of our time. And the teaching program produces those well-trained farmers, teachers, lawyers, businessmen, doctors, nurses, engineers, and scientists whose services we find indispensable.

Teaching is, of course, the basic function of the University, and during the 1959-1960 academic year the University of Minnesota continued to develop and improve its teaching programs to meet the demands and complexities of the age in which we live.

Program Development through

Fellowships and Grants

One of the most important events this year in regard to program development was the allocation of 17 fellowships to the University under the provisions of Title IV of the National Defense Education Act. Each fellow receives from federal funds a stipend of \$2,000 in the first year, and \$2,500 in the two successive years, while the University receives additional funds to support new or expanded programs in the areas of fellowship study. As a result, four new college teaching programs were established, and plans were also made, upon the allocation of 34 fellowships for 1960-1961 under this Act, to initiate five other new programs.

The College of Education, which received other kinds of grants under a different section of the Act, was itself responsible for helping the Federal Office of Education to establish the criteria and the organization for administering these funds granted by Congress.

Special grants made through provisions of the National Defense Education Act and through the National Science Foundation, the Louis W. and Maud Hill Family Foundation, the Atomic Energy Commission, the World Health Organization, and the International Cooperation Administration made a number of summer session institutes possible on subjects ranging from counseling and guidance procedures to radiation biology.

The National Science Foundation also made a number of fellowships available to support graduate education at the University. The University received 24 National Science Foundation Cooperative and Summer Fellowships and 16 Summer Fellowships for Graduate Teaching Assistants. A special grant of \$1,800 for each Cooperative Fellow was given to the University to support and strengthen graduate education in the sciences.

Other grants established specifically designated programs. In May the Regents accepted a \$110,000 grant from the Carnegie Foundation establishing a three-year pilot program to inaugurate the Minnesota Plan for the Continuing Education of Women. The first of its kind in the nation, the plan will involve the cooperation of all

University departments and the special facilities of the General Extension Division.

Among other grants making new programs possible were a five-year grant from the Louis W. and Maud Hill Family Foundation to enable the Graduate School to develop a program of South Asian studies, and a three-year grant from the Danforth Foundation to support a visiting professorship of theology under the administration of the College of Science, Literature, and the Arts.

Other Curricula Developments

The year 1959-1960 saw a growing emphasis on serving superior students and challenging them to the best of their abilities. Special honors programs and seminars were added to those already offered in the College of Science, Literature, and the Arts (SLA), the Institute of Technology, and the College of Pharmacy, with plans made to expand such programs even more in the future. In addition, high-ability students had a wide range of opportunity to participate in research programs and were encouraged to extend their studies into graduate areas.

Also significant were experiments with larger classes in some freshman courses to determine if such procedures would ease fiscal problems without damaging individual student goals. Television played an important role in experiments on how to cope with increasing enrollments. For example, the College of SLA, with the cooperation

of the Correspondence Study Department, for the first time offered credit courses over KTCA-TV, the Twin Cities Area educational television station, in sociology, social problems, and beginning German. Closed-circuit television was used in the Department of Aeronautical Engineering, the School of Physics, the School of Dentistry, and the College of Education to enable students to observe more closely certain tools and procedures.

Other developments included the establishment of a new Department of Dairy Industries in the Institute of Agriculture, and of a new Department of Statistics in the College of SLA, through the cooperation of other departments and colleges. Several special education programs in the College of Education for training teachers of the blind and mentally retarded were inaugurated, with the help of foundation and federal grants, and with Legislative support. In addition, new course programs and revisions to meet new demands were initiated in every college, school, and institute on the three campuses.

Especially interesting is the way in which units of the University cooperate with each other to provide needed courses and programs. The College of SLA, for example, devoted more than one-third of its teaching time to students enrolled in other colleges. It also helped to establish (and will continue to help with staff and planning) a humanities program for the College of

Agriculture, Forestry, and Home Economics. A joint program was worked out by the College of Science, Literature, and the Arts and the College of Education so that students can complete the requirements of both colleges in a little more than four years. These colleges also cooperated with the Institute of Technology on plans for undergraduate and graduate programs for secondary school teachers of mathematics, chemistry, and physics. All colleges cooperated through the University College Committee to enable students to take courses in more than one college for specialized work toward a degree, evidencing the concern of the University for the individual student and his goals in higher education.

Summer Session

The University Summer Session is not only the largest, but it is one of the most distinguished in America. More than 1,000 courses are taught by regular University faculty members and by a distinguished visiting faculty; and it is interesting to note that this instructional program is supported largely by student tuitions. The 17,316 graduate and undergraduate students enrolled during the two summer sessions of 1959 boosted the summer enrollment figure 5.8 per cent over the previous year. These 1959 sessions on the Minneapolis, St. Paul, and Duluth campuses demonstrated the continuing trend for regularly-enrolled students to continue academic work through the summer months; this is especially true of graduate students.

Special programs held during the 1959 summer sessions included courses for gifted high school students, a University Theater program which brought outstanding persons in professional theater to the Minneapolis campus, a School of Journalism workshop for high school advisers and teachers, and a national conference on geology training sponsored on the Duluth campus by the American Geological Institute.

Other Teaching Programs

In addition to its collegiate teaching program, the Institute of Agriculture offered, through the Office of Agricultural Short Courses on the St. Paul campus, 39 short courses, which were attended by more than 12,000 persons, and through the Schools of Agriculture at Crookston, Grand Rapids, Morris, and Waseca, twelve short courses, attended by 3,448 persons. Institute-sponsored meetings which drew the largest numbers of participants were the annual Farm and Home Week, with 3,500 people, and the Future Farmers of America meeting, with 2,000.

Departments of the General Extension Division are unique in that they offer a variety of learning opportunities to all Minnesota citizens. In the Extension Division's program of instruction for those who are not regular day-school students, the Division provides evening, special, and

correspondence course work in technical, vocational, and higher-level liberal education, utilizing courses offered through most institutes, colleges, and schools of the University. A total of 36,148 persons enrolled in these programs and in the Division's short-courses and Continuation Center courses during 1959-1960.

Sixty per cent of those taking collegiate, high school, certificate, preparatory, and special courses through the Correspondence Study Department were from Minnesota, while the rest represented all of the states and many foreign countries. Among the special courses was modern mathematics, given to 600 selected superior high school students, and made possible by a grant from the National Science Foundation. A naturalization program under the auspices of the U.S. Office of Immigration and Naturalization was held for approximately 100 aliens.

During the year, 126 courses, conferences, and institutes were offered to 10,550 persons in various fields through the Center for Continuation Study in cooperation with the concerned colleges, institutes, and schools throughout the University. Among the noteworthy offerings this year was a symposium of world-wide importance on "Radioisotopes in the Biosphere," with 32 scientists, seven of whom were from abroad, presenting papers. It was sponsored by the University with the support of the Atomic

Energy Commission, the National Science Foundation, and the Agricultural Research Service of the U.S. Department of Agriculture. Another significant program was the American Mining Engineering Institute held in Duluth; it reached the largest enrollment, 743 persons, in the Institute's 21-year history.

The University's Industrial Relations Center also carries out special programs of instruction. On July 1, 1959, the beginning of the fiscal year, the Center assumed primary responsibility for the University's labor education program. This was in accordance with the provisions of special legislative grants for the development of new projects to train teachers and union education committee chairmen. This year several training courses were held and two special graduate courses in labor education were developed for this program.

Numerous conferences were sponsored by most institutes, colleges, and schools of the University for special professional groups. They ranged from a national symposium on educational research, under the auspices of the College of Education, to a series of twelve conferences between clergy and funeral directors, sponsored by the Applied Mortuary Science Department.

Foundations and government agencies made a number of instructional conferences possible. For example, the School of Physics was host to 60 physicists from all over the country at a national conference to consider needs of university-level introductory physics courses; the conference was supported by the National Science Foundation and sponsored by the American Association of Physics Teachers. The Minnesota Wing of the Air Force Association and the Civil Air Patrol financed a College of Education symposium on "The Creative Challenge to Man in the Space Age," and a Ford Foundation grant made possible a symposium conducted by the School of Business Administration for businessmen and educators to review professional training for business in the light of critical reports by the Ford and Carnegie Foundations.

The University Libraries

As a major facility, the University Libraries are at the heart of the teaching program of the University of Minnesota. And the year 1959-1960 was one in which major demands were made upon this facility. These demands took the form of an increasingly large number of students requiring an increasing number of books (and more room, for both books and students, in Walter Library); a growing literature, increasing the demand in every

field for more and more book purchases, coupled with higher prices of books and journals; and the demand by industries and government agencies throughout the state for the kind of specialized information only the libraries can provide.

This year was made noteworthy for the University Libraries by the construction of the new Bio-Medical Library in Diehl Hall, which releases some stack space and some 200 badly-needed seats for students in the Walter Library.

A valuable part of the University Libraries are the several special collections given as gifts to the University; notable among these is the James Ford Bell Library, with its priceless collection of early manuscripts on the exploration of world trade routes. This library, together with the room in which it is housed, is of importance not only as a resource for scholars, but also as a part of the richness of cultural opportunities on the campus of the University.

The number of books in the University Libraries is fast approaching the two-million mark -- some time in 1961 this figure will be reached. Clearly, as the demand for this major University facility increases -- and it is increasing rapidly -- the physical facilities of the libraries must also increase.

Faculty and Staff Publication

Publication by faculty and staff members is actually as inseparable a part of the research and public service programs as it is of the teaching program. It stimulates new teaching procedures, affords new materials and ideas for teachers at the University and elsewhere, presents the results of important research projects, and shares the results of University activities with various publics.

Each year University faculty members edit, write, and publish many books, monographs, journals, and bulletins, and publish articles and essays in thousands of other books, monographs, bulletins, newspapers, yearbooks, and professional, scholarly, scientific, and popular journals. A paperback book of more than 200 pages, Publications of the Faculties, is issued annually to list them all.

During 1959-1960 a new University-wide publication was initiated by the faculty. In December the first of the four annual issues of The Senate Forum was published by the University Senate under the supervision of its faculty consultative committee. It is designed to provide a medium for the exchange of faculty ideas on current educational issues and developments.

The Minnesotan, the University's "house organ," continued to be issued monthly from October through May by the Department of University Relations to

inform staff members of various University activities. Reports 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.

Especially significant to Minnesotans are the publications of the Institute of Agriculture, which distributes throughout the state more than a million copies each year of over 325 publications. These are read by gardeners, farmers, businessmen, rural and urban homemakers, Agricultural Extension Service county and home demonstration agents, as well as by home economics, vocational agriculture, and other high school instructors. Included are the three periodicals Minnesota Farm Business Notes, The Minnesota Feed Service, and Minnesota Farm and Home Science, plus more than a dozen special newsletters to groups such as nurserymen, timber producers, and so forth. The Industrial Relations Center and the Minnesota Alumni Association also issue publications to their special groups.

The Bureau of Institutional Research, in addition to the many publications it issued throughout the University and the nation to promote more effective classroom

teaching procedures, this year published the findings of its three-year pioneering study, Faculty Attraction and Retention: Factors Affecting Faculty Mobility at the University of Minnesota. During the year the Bureau staff also cooperated with other University units in planning and executing self-study and evaluation projects; it participated in the College of Education's teaching program; and it answered requests from all over the United States from institutions interested in developing similar self-study programs.

Student and Faculty Scholarships and Fellowships

Scholarship and fellowship programs make it possible for many outstanding students to enroll in the University. In addition to the fellowships provided through the National Defense Education Act and the National Science Foundation, University of Minnesota students receive scholarships and fellowships from numerous community, state, and national government agencies and private organizations. A partial list of these agencies and organizations and the students to whom the awards were given covers more than 100 pages in the Cap and Gown Day Convocation program of May 19 for the Minneapolis and St. Paul campuses. In Duluth, community organizations, businesses, and individuals added eight new scholarships and awards during the year for Duluth campus students.

The large number of students on University of Minnesota campuses receiving these local, state, and national awards is indicative of the increasing national awareness of the importance of higher education. It testifies also to the eminence of the University of Minnesota. The number of Woodrow Wilson Fellows studying at the University is revealing: while thirteen University of Minnesota graduating seniors were awarded these Fellowships during 1959-1960, 21 Woodrow Wilson Fellows from other colleges and universities chose to attend the University of Minnesota for graduate study during the academic year.

Many students are also selected annually to study abroad. This year ten Minnesota students received Fulbright awards. In addition, University students participating in the Student Project for Amity Among Nations received 26 SPAN scholarships, made possible by the state SPAN organization, student groups, businesses and organizations, and interested individuals in the state.

Many of the contributions to scholarship and fellowship programs are channeled through the Greater University Fund. The contributions to this Fund, which amounted this year to more than \$463,500, on behalf of 417 different projects, cover various research and equipment needs as well as scholarships.

While students receive awards to further their work toward degrees, faculty members annually receive grants to further their teaching, research, and public service activities. During 1959-1960, eleven full-time faculty members received Fulbright and Smith-Mundt awards for research and lecturing abroad. Since this program was initiated, University faculty members have held more than 80 Fulbright appointments, taking them to 22 countries. During the year faculty members were also engaged in research abroad or within the United States on Guggenheim Fellowships. There are, in addition, so many faculty members engaged in teaching, research, and advanced study activities under various kinds of grants from 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 other state, national, and international government agencies, private organizations, and professional societies, that a list of them would fill a good-sized brochure.

A faculty, however, is not only distinguished by the honors it receives, but also by the quality of the students it has taught. And the graduates of the University of Minnesota are the best testament to the excellence of its faculty.

RESEARCH

Research occupies a significant segment of the time and energy of the University, and constitutes such an integral part of the teaching program, especially in the scientific and graduate areas, that the two programs are actually inseparable. Although Legislative appropriations make a number of research projects possible, research at the University is supported in large part by grants from the federal government and from private agencies. It is interesting to note that a private Minnesota organization, the Louis W. and Maud Hill Family Foundation, had nearly \$2,500,000 invested in University research projects in 1959-1960.

In the College of Medical Sciences, the total funds received from outside sources in support of medical and related research and research training projects exceeded \$6 million, with about three-fourths of that amount provided by various federal agencies, and the balance by private contributors and voluntary health agencies.

In the Institute of Technology, nearly all research was supported by outside grants. And again, in the Institute of Agriculture, significant sources of support came from funds granted under contracts with various federal agencies and private groups.

It is, of course, impossible to mention all of the research projects carried on by all University institutes, colleges, and schools, not only on the three campuses, but also at the University's Rosemount Research Center, Cloquet Forest Research Center, Cedar Creek Natural History Area near Bethel, the Fruit Breeding Farm and Arboretum at Excelsior, the Lake Itasca Forestry and Biological Station, the Mayo Foundation at Rochester, the Hormel Institute at Austin, the University Hospitals, and the agricultural experiment stations scattered throughout the state.

It is only possible to touch upon some of the work being done by those University divisions conducting research projects of wide public significance.

Health Sciences

Some of the University's most dramatic research studies are being carried out in the health fields. In the College of Medical Sciences, for example, the results of one project suggest that surgeons will be able one day to transplant vital organs from one human being to another. Equally significant are projects concerned with the attack on heart disease and on finding the solution to the riddle, or riddles, of cancer.

Basic science laboratories and divisions throughout the College of Medical Sciences are intensively studying the clinical aspects of heart disease, the physiology and biochemistry of the cardiovascular system, and the effects of diet on the heart. At the same time, imaginative new surgical approaches, techniques, and materials to correct heart defects once thought hopeless were developed. Because the ultimate solution to the mystery of cancer may be brought closer by a better understanding of how cells, especially cancer cells, function, several studies were devoted to just this subject. One project explored the relationship between viruses and human cells, in an attempt to shed light on the question of why human cells and animal cells are not equally susceptible to certain viruses.

At the School of Public Health faculty members were studying leukemia and coronary artery disease, employing epidemiologic approaches and methods. Other projects included statistical studies on the effectiveness of oral polio vaccine, a stream pollution survey of the Rainy River, and a study of the water of Lake Superior. The University Health Service studied bacterial contamination in hospital environments, with the staff investigating ways of preventing the spread of infections, especially the staphylococcal infections.

Among numerous research projects conducted by the School of Dentistry were studies of tooth decay prevention, with particular attention paid to the ways in which flourine in drinking water helps to arrest the increase of dental disease. Other studies concerned new discoveries in the general field of oral pathology. Of fundamental significance this year was the establishment by the Louis W. and Maud Hill Family Foundation of a professorship dedicated to research in dentistry.

In the College of Pharmacy progress was made in research on medicinal agents of natural origin which have significant effects on the heart, circulation, and central nervous system. In addition, two new classes of potential antispasmodics were produced; a method for control of certain drugs based on radio frequency conductometric methods was developed; and new insights were gained into the nature and mechanism of the enzyme action involved in blood-clotting and fibrinolytic processes.

The Institute of Technology

All of the five chief departments of the Institute of Technology were engaged in major research projects during 1959-1960. Among the most significant projects were studies of atmospheric

phenomena, work on extending Minnesota's taconite resources, and investigations into the properties of materials.

Research initiated in the beginning of the International Geophysical Year (1958) continued in the School of Physics. Two studies were related to atmospheric phenomena, one dealing with cosmic radiation in interplanetary space, and the other with the sun's atmosphere. To further these studies, instrumentation developed by the School of Physics staff was installed aboard some Explorer satellites.

The School of Mines and Metallurgy worked closely with the University's Mines Experiment Station, where studies were in process that would extend those carried out by Professor Emeritus Edward W. Davis on magnetic taconite. Research this year emphasized the beneficiation (separation of iron ore from the shale sub-strain) of non-magnetic taconite, pointing the way toward making the taconite resources of Minnesota available for use to an even greater degree.

In the St. Anthony Falls Hydraulic Laboratory, located on the Mississippi River a mile upstream from the Minneapolis campus, studies of proposed water control projects all over the world -- in such far-flung places as Pakistan, Iraq, Iran, and Venezuela -- were

continued. Basic studies in fluid and hydro-mechanics, as well as research in hydrofoil design, were carried on for various federal government agencies, including the Corps of Engineers, the Department of Agriculture, the United States Geological Survey and, particularly, the United States Navy.

Research projects in the properties of materials were conducted by the Department of Electrical Engineering. These included studies of the processes of electron emission and of photo-conduction, of fluctuation phenomena in electronic devices, of ferro-magnetic resonance, and of the properties of gas discharges.

The Graduate School

Numerous research projects were coordinated during the academic year 1959-1960 through the Graduate School. Some of these are discussed elsewhere in connection with the school, college, or institute under which they were carried out. To list all of the significant projects coordinated through the Graduate School would be an impossible task, especially if descriptions were given of the development and improvement of the Cedar Creek Natural History Area and of the outstanding and productive research of the Mayo Foundation, the Hormel Institute, the Social Science Research Center, and the Dight Institute (which conducts research and counseling on diseases and other problems of a genetic character).

(continued on page 20)

ENROLLMENT IN COLLEGES

General College	2,822
College of Science, Literature, and the Arts	8,552
University College	78
Institute of Technology	3,798
College of Agriculture, Forestry, and Home Economics	2,001
College of Education	3,360
School of Business Administration	877
College of Pharmacy	143
Law School	270
College of Veterinary Medicine	174
School of Dentistry	453
College of Medical Sciences	1,320
Graduate School (including Summer Session)	5,383
Duluth Campus	2,789
Summer Session (excluding Graduate School students)	12,805
Less duplicates*	7,902
	<hr/>
	36,923

ENROLLMENT IN EXTENSION DIVISION

Evening and Special Classes	13,851
Short Courses	4,109
Correspondence Study	8,240
Center for Continuation Study	10,550
	<hr/>
	36,750
Less duplicates* 602	<hr/>
	36,148

TOTAL ENROLLMENT	90,621
LESS DUPLICATES* 3,025	<hr/>
	87,596

**Total Number Who Received University
Instruction in 1959-1960**

*Individuals who have been enrolled in more than one school

FACTS AND

1959

ENROLLMENT IN AGRICULTURE

School of Agriculture
Northwest School of Crookston
West Central School Morris
North Central School Grand Rapids
Southern School and Waseca

FIGURES

1960

6666666666
7777777777
8888888888
9999999999
72 23 74 75 76 77 78 79 80 81
3333333333
4444444444
5555555555

CULTURAL SHORT COURSES

St. Paul	12,060
Agriculture,	629
and Station,	2,384
and Station,	386
tation,	49
	<hr/>
	15,508

ROTC COMMISSIONS CONFERRED

For the U.S. Army	74
For the U.S. Navy	27
For the U.S. Air Force	<u>28</u>
	129

ENROLLMENT IN SUB-COLLEGIATE DIVISIONS

School of Agriculture, St. Paul	169
Northwest School and Station, Crookston	344
West Central School and Station, Morris	269
North Central School and Station, Grand Rapids	79
Southern School and Station, Waseca	230
University Schools, Minneapolis (High School, Elementary School, Kindergarten and Nursery)	719
Laboratory School, Duluth	<u>232</u>
	2,042

DEGREES AND CERTIFICATES
GRANTED IN 1959 - 1960

General Extension Division	29
General College	369
College of Science, Literature and the Arts	969
University College	21
Institute of Technology	589
College of Agriculture, Forestry, and Home Economics	305
College of Education	799
School of Business Administration	309
College of Pharmacy	20
Law School	94
College of Veterinary Medicine	76
School of Dentistry	174
College of Medical Sciences	500
Graduate School	1,076
Duluth Campus	455
	<hr/>
	5,785
Non-Degree Certificates Issued by Schools and Colleges	619

on division during the year have been counted only once.

A new research project of importance was initiated by a five-year grant of \$207,000 to the Graduate School from the Louis W. and Maud Hill Family Foundation, under which a Limnological Research Center, to study fresh water resources, was created. The Institute of Technology was given the administrative responsibility for this project, but the Center will enable various colleges of the University to focus their research on the same subject, each from its own viewpoint: economic, biological, recreational, or conservational.

From its regular research funds, supported by Legislative appropriations, the Graduate School helped to start 163 research projects, with the hope that outside sources would contribute to their support after the initial period. Among the wide variety of subjects were studies of rock fragmentation, of the philosophy of John Dewey, of tranquilizers, of muscle failure, and of iron ore taxation policies. Investigations were made of strontium 90, a fallout product, in Minnesota soils; experiments were made on plant embryo growth; and equipment was provided for research in physical electronics, and for development of a solar furnace for high-temperature radiation studies.

Agricultural and Veterinary Sciences

Much of the Institute of Agriculture's research is carried on through the Agricultural Experiment

Station and through its several branch stations located throughout the state. In accordance with Legislative action, a new branch station, the Southwest Experiment Station, was established at Lamberton on October 1. By the end of the year the station was in full operation, concentrating its studies on soils and crops.

In spite of fiscal problems, the Agricultural Experiment Station engaged in nearly 300 significant projects, in such varied areas as pest control, commercial fish production, the utilization of nitrogen by humans, and the treatment of egg shells as a means of maintaining the quality of eggs in market. Another study, designed to improve alfalfa varieties, was of special concern to Minnesota livestock farmers. The changing market situation with regard to agricultural crops in the dairy industry was also investigated.

One project was developed as a result of the increasing interest in commercial Christmas-tree production in the state, with research designed to make this an even more profitable industry. Two other studies were of sociological significance: rural social organizations were investigated to provide information on the social adjustments accompanying the present-day revolution in agricultural technology, and the problem of faulty agricultural communications was studied to determine why rural dwellers are reluctant to accept new, improved practices.

Forty research projects in the College of Veterinary Medicine pointed toward reduction and control of animal diseases, a number of which are transmissible to man. Special projects included study of bovine lymphatic leukemia, under a grant from the Atomic Energy Commission, and the establishment, through grants from the National Institutes of Health (U.S. Public Health Service), of an electron microscope facility, which will be made available to other research groups on the St. Paul Campus.

Other Projects

Major research and service projects were put into operation during the year in the School of Business Administration. The Upper Midwest Economic Survey, supported by the Ford Foundation and by business organizations and businessmen in the area, began in the fall under the administration of the School and the Upper Midwest Research and Development Council. The survey, expected to last three years, will examine the economic potential of the Ninth Federal Reserve District. It will also include a special study of how the growth of metropolitan areas affects the economic development of the region.

Under a grant from the Small Business Administration, the School is conducting research studies

to improve the level of business management among small businesses in the nation. The grant was extended to include study of some of the management problems associated with the opening of the St. Lawrence Seaway.

Among the many other research projects carried on at the University were those conducted by the Industrial Relations Center with the financial support and cooperation of companies, unions, government agencies, and concerned professional societies. Projects covered such subjects as vocational rehabilitation of handicapped workers, employee attitudes, and management development. A Center for Personality Research was established within the Department of Psychology to facilitate research investigation and to prepare graduate students for research careers in the mental health field.

In addition, projects supported by federal agencies and foundations, totaling well over \$1 million, were started or completed this year in the College of Education. These included studies on identifying the unusually creative individual and on methods for selecting effective teachers.

Research projects are, of course, conducted on the Duluth Campus as well as on the Minneapolis and St. Paul Campuses. The cost this year of research projects carried on by 33 faculty members at Duluth, \$200,000, was met largely by funds from

the Graduate School, the Louis W. and Maud Hill Family Foundation, the National Science Foundation, the U.S. Public Health Service, the Atomic Energy Commission, and the Iron Range Resources and Rehabilitation Commission.

All University research projects served as integral parts of the design formed by the University's three-fold purpose; as research is ultimately an inseparable part of the teaching function, so is it an indispensable part of the public service program.

PUBLIC SERVICE

All regular faculty members of the University of Minnesota serve the public, as well as furthering their own teaching and research aims through their membership and executive positions in professional, scholarly, and honorary organizations. In addition, nearly every senior faculty member serves on one or more committees, boards, councils, and advisory groups of local, state, national, and international government agencies. In 1959-1960, these services ranged from work with the Seaway Port Authority of Duluth and with the U.S. Bureau of the Census to service with the United Nations Educational, Scientific, and Cultural Organization. A faculty member served with the Atomic Energy Commission; another worked on a federal Supreme Court committee; still another served on the board of the National Science Foundation; yet others went abroad as technical experts for the Department of State and the Department of Agriculture.

Faculty members also served on committees and boards of private foundations and organizations, and were members and officers of civic groups ranging from the Duluth Chamber of Commerce to the Minnesota Flying Farmers Association. They served as teachers and as citizens vitally concerned with the development of an educated citizenry, with the welfare of the state, and with the peace and prosperity of the world.

University Public Service Programs

Public services performed by divisions of the University, rather than by individuals, have already been discussed to a large extent in the sections on teaching and research. The public services of the College of Medical Sciences, for example, are best expressed by its teaching and research programs, through which it serves the community and health professions in so many ways. The results of its programs are shared with the medical profession throughout the world. The professional services rendered to patients in the University Hospitals are well known and internationally recognized.

The public as a whole also recognizes the University as a valuable source of information. Thousands of requests are annually answered by University departments which possess the specialized knowledge needed by various publics. For example, the College of Pharmacy faculty this year received and answered numerous requests for information about drug products from the lay public, from members of the health professions and, especially, from the pharmacists of Minnesota. Various laboratories and departments identified everything from bugs to paintings and from arrowheads to plants for interested citizens; the Department of Botany's herbarium staff alone made 300 identifications.

The St. Paul campus received so many requests for information during the growing season that special information centers were established by the Agricultural Extension Service and the Departments of Plant Pathology, Entomology, and Horticulture.

During the year, the Audio-Visual Extension Service continued to provide visual materials and instructions for use in schools, educational institutions, community organizations, business and industrial firms, and other groups in the state. In 1959-1960, the Service made 77,000 bookings for 2,414 such groups, the busiest year in the history of the Service.

Minnesota industries also utilized many of the University's services, ranging from the University Libraries to the specialized services of the Industrial Relations Center. Examples of the ways in which the University served industry would include the appointment made this year by the Governor of a committee, headed by the chairman of the Department of Electrical Engineering, to assist Minnesota's fast-growing electronics industry and to help it develop even further. Another example is that of the University Health Service in carrying out a pre-operational radiation background study for a nuclear reactor site at Elk River through contract arrangements with the Elk River Cooperative Association and the Atomic Energy Commission.

The close connection of the University with various agencies and organizations is perhaps best exemplified by the services of the College of Veterinary Medicine, the Municipal Reference Bureau, and the State Organization Service. The Division of Veterinary Diagnostic Laboratories in the College of Veterinary Medicine is the official diagnostic laboratory for the Minnesota State Livestock Sanitary Board. In this capacity, it serves the veterinary profession and the animal industries of the state as the first line of defense against all animal diseases in Minnesota. Also, through the Minnesota State Livestock Sanitary Board, many of the College faculty members are called upon to assist in determining diagnoses of animal disease outbreaks in the state.

A department of the General Extension Division, the Municipal Reference Bureau is closely connected with the League of Minnesota Municipalities, (which is itself housed at the University,) a voluntary organization embracing 625 of the some 830 incorporated cities and villages of the state. During 1959-1960 the Bureau and the League co-sponsored sixteen schools for municipal officers at the Center for Continuation Study, attended by 1,048. In the fall, sixteen regional meetings were held throughout the state, attended by 1,626 officials representing 296 municipalities.

During the year the General Extension Division's State Organization Service continued to provide a secretariat for 34 state and national organizations

conducting programs for the benefit of the general public, and provided administrative direction for the Minnesota World Affairs Center.

Agricultural Extension Service

More Minnesotans are acquainted with this department of the University than with any other. Charged with giving the people information growing out of research in agriculture, home economics, forestry, and veterinary medicine, the Agricultural Extension Service brings to every part of the state the educational and informational resources of both the University and the U.S. Department of Agriculture. By the close of the fiscal year, the county extension agents, who are sponsored and supported by the county, the University, and the U.S. Department of Agriculture, were working with approximately 181,000 farm families in Minnesota.

Extension agents aided families in studying the management of farm business and family finances. Other educational programs were designed to help families and groups to achieve lower unit costs in production, to improve marketing practices and systems, to carry on youth programs, to attain broader understanding of public affairs, and to pay increasing attention to the conservation and development of resources.

Another important phase of Extension Service work is the 4-H program. More than 50,000 boys and girls in the state participated during the year. In addition to furthering the traditional purposes of the program, emphasis was placed on career exploration and counseling, with roughly two-thirds of the farm boys and girls destined to find their vocations off the farm.

The College of Education

Also concerned with the vocational and educational aspirations of young people are the various departments of the College of Education. In addition to the services of the College performs through research programs and in providing teachers, counselors, school psychologists, principals, superintendents, and supervisors, it holds the philosophy that the problems of any school system in the state are the problems of the University. To this end, the College's Bureau of Field Studies and Surveys has completed more than 200 surveys since it was organized in 1948-1949.

Another service, performed by the College's Bureau of Recommendations, places teachers in positions in the state and throughout the nation. During 1959-1960, the number of requests received by the Bureau for specified personnel positions in elementary, secondary, and college-level schools exceeded 20,000, with an estimated 2,250 persons placed. The number of requests received by the Bureau, therefore, exceeded by about 10 to 1 the number of candidates available for placement.

Public service is a major function of every land-grant institution, and the University of Minnesota serves the public in many ways. The most obvious have been discussed above.

Nonetheless, the broad definition of public service should also include those services which through enlightenment and entertainment enrich the mind and spirit of all of the people.

CULTURAL ACTIVITIES

Cultural activities of the University of Minnesota are many and varied, and most of them are enjoyed by the general public as well as by students and staff. For example, thousands of visitors come annually to see the art displays in the University Gallery in Northrop Memorial Auditorium, in the Tweed Gallery on the Duluth campus, and in the student centers throughout the three campuses. Many more persons take advantage of the lecture, music, and drama programs sponsored by the University, while still more individuals listen to its radio programs, watch its telecasts, read its books, and visit its natural history exhibits.

Public Lectures and Conferences

Annually, in addition to the commencement addresses and to the many conferences sponsored on subjects of interest to specialized publics, a number of lectures are presented that are of general public interest. Many off-campus guests attend the convocations which are held at 11:30 every Thursday morning during the regular school year in Northrop Memorial Auditorium, or listen to the re-broadcast of these programs on radio station KUOM. Under the auspices of the Department of Concerts and

Lectures, the 27 convocations held this year included lectures by such people as choreographer Agnes DeMille, newspaperman Hanson Baldwin, and humorist Bennett Cerf. Some of the convocations were sponsored in cooperation with other University departments. For example, the Reverend Martin Luther King spoke in October as the principal speaker in a three-day American Studies Conference on Civil Rights which attracted many off-campus visitors.

Speaking at annual lecture programs were Kingsley Davis of the University of California, Berkeley, who delivered the Guy Stanton Ford lecture on "Public Policy and the World Population Crisis," and Robert Penn Warren, nationally known author and former member of the University of Minnesota faculty, who delivered the Joseph Warren Beach lecture on "The End of a Poetic Era -- Meditations at Mid-Century."

Among other events which attracted far larger audiences than anticipated were three lecture series presented for the public on a subscription basis, as part of the General Extension Division's Liberal Arts Program. Some 189 persons attended the eighth program of "Man and His Scientific Quest"; two new series, "The Glory of Byzantium" and "The Temper of the Twenties," were completely sold out.

Music and Drama

Through the services of the Department of Concerts and Lectures, Minnesotans hear some of the finest music in the world at Northrop Memorial Auditorium. The Department's University Artists Course Series offered 31 programs during the year; these 31 programs included the eight concerts in the Master-piece Series, the Celebrity Series, with four programs, and the newly-formed New Artists Series, in addition to fifteen special concerts.

The Auditorium is the home of the world-famous Minneapolis Symphony Orchestra, which this past year witnessed Antal Dorati's last performance as its conductor and the selection of a young new conductor from Poland, Stanislaw Skrowaczewski. Maestro Skrowaczewski heads the only major orchestra in the United States to have its home on the campus of a university, and this partnership has strengthened and enriched the cultural life of the Upper Midwest.

The Department of Concerts and Lectures also arranged concerts and convocation programs during the two summer sessions. With the continued and generous cooperation of Local 73 of the American Federation of Musicians, the University has maintained a national reputation for its summer concerts. Funds to cover two-thirds of the cost of the Summer Session Orchestra's musicians come through a grant from the Music Performance Trust Fund of the Recording Industry.

One of the major musical events in the Upper Midwest occurs in the spring, when performances of the Metropolitan Opera in Northrop Memorial Auditorium are sponsored by the University, the Orchestral Association of Minnesota, and an Upper Midwest committee of sponsors and guarantors.

The Special Cultural Projects Fund, made up of "profits" from past Metropolitan Opera presentations, is used primarily to underwrite musical projects that would otherwise not be possible. The Fund this year contributed toward preparation of an Opera Handbook, to be published by the University Press, for use by smaller communities and colleges throughout the nation. The Fund also helped to defray the cost of presenting Welcome Week's "Introduction to the Lively Arts," a program which, every fall, introduces University freshmen to cultural opportunities on the campus.

The University of Minnesota Program Service, also a part of the Department of Concerts and Lectures, sent performers, lecturers, and artists directly to Upper Midwest schools, colleges, and community organizations, where they were seen by an estimated 400,000 persons. The Department's Drama Advisory Service and Loan Play Library served theaters, community playhouses, and school and college drama departments all over the same area.

No section on music at the University would be complete, moreover, without mention of the University of Minnesota Chorus, the Men's Glee Club, the Women's Glee Club, the Chamber Singers, the Music Educators' Chorus, the St. Paul Campus Chorus, the University Symphony Orchestra, the Concert and Marching Bands, and, at the Duluth campus, the Bands, the Chorus, and the Orchestra. All of these many groups performed in concerts during the year.

Among the major University attractions are the programs of the University Theater, presented on the Minneapolis campus and throughout the state and neighboring areas, including on tour along the Mississippi River. During the year nearly 136,000 persons saw casts composed primarily of University students and faculty in 356 performances. Included in these audiences were the 77,500 high school students in Minnesota, Iowa, Wisconsin, and North and South Dakota who saw the Theater's "Drama Duo" present one-hour programs of pantomimes and play scenes under the auspices of the University of Minnesota Program Service.

In addition to the regular attractions on the Scott Hall Auditorium stage, on the Minneapolis campus, special programs included the Young People's Plays, the Arena and Studio Plays, two foreign-language plays, and a University Theater High School summer workshop production.

Of particular interest is the Centennial Showboat, an old riverboat refurbished as a theater, and usually moored on the Mississippi River just below the Minneapolis campus. Nearly 19,000 persons laughed their way through 89 sell-out performances of She Stoops to Conquer and Billy the Kid. By the end of its second season, the Showboat had played to 40,000 persons who came from every state but two and from 40 foreign countries.

University Broadcasting

Readily available to the people within broadcasting range are the programs of the Department of Radio and Television Broadcasting of the General Extension Division. These programs are carried over KUOM, the University radio station, and on the University of Minnesota Hour on KTCA-TV, the Twin Cities area educational television station, which carries regularly-scheduled University-sponsored telecasts.

Because most commercial radio time is occupied with lighter fare, KUOM has found growing and enthusiastic audiences for serious programs of music, the humanities, drama, and current affairs. On the Duluth campus, the Speech Department started programming on a new broadcasting station, KUMD-FM.

In addition to the credit courses it sponsored over KTCA-TV, the University telecast a number of informal programs on educational and cultural subjects during the year. Among these programs were the twelfth and thirteenth annual public discussion series sponsored by the Graduate School's Social Science Research Center. There were twelve programs on "Controlling Human Behavior" and ten on the Conant Report on education. Another well-received University telecast was a twelve-program "Meet the Author" series in which authors of University of Minnesota Press publications were interviewed.

The University of Minnesota Press

Recognized as one of the outstanding university presses in the country, the University of Minnesota Press continued during 1959-1960 to publish significant works and to receive honors for its productions. Three awards were given to Press authors for their research and five awards were received by Press books for their excellence in design.

An important landmark in University Press history occurred in October when it launched its series University of Minnesota Pamphlets on American Writers. The six pamphlets published this year began what is expected will be a long-continuing series. And, as any great university press does, the Minnesota Press carries the scholarly reputation of this University all over the world.

The Museum of Natural History

Nearly 57,000 persons saw the Museum's exhibits, more than 400 groups of school children were taken on guided tours, and nearly 14,000 visitors attended the 23 Sunday lecture programs. Also, and in addition to lectures presented throughout the state, staff members conducted the Nature Interpretation Program of the State Parks, with financial support from the Division of State Parks, Minnesota Department of Conservation.

CAMPUS SERVICE, SOCIAL, AND ATHLETIC ACTIVITIES

It would, of course, be impossible to discuss the variety of activities and organizations in which University of Minnesota students participated. The campus newspaper, The Minnesota Daily, and the Gopher yearbook present a record of many of them. The most important event in student activities was the beginning of the Minnesota Student Association, with members working throughout the year on plans for the National Student Association Conference, scheduled for the Minneapolis campus during the summer of 1960.

Headline items included news of student concern with segregation actions in the South and discrimination in student organizations on the campus, and of some unfortunate "humor" that tested the issue of taste and responsibility in student publications.

Also significant were the 822 service projects through which 188 student groups raised or donated nearly \$42,000 for charitable projects. Student service projects included scrubbing floors, washing windows, and painting walls in state hospitals; cleaning buildings and grounds at churches, settlement houses, and Salvation Army Camps; entertaining patients at hospitals for crippled children and homes for the aged;

and collecting for various clothing, book, and fund drives. It is also interesting to note that well over half of the collegiate students worked full- or part-time to contribute toward financing their studies.

While the year witnessed new records made in social service projects, it also marked an increased participation in intercollegiate athletics (see Special Events section), intramural sports, and recreational activities. The largest number of students in history took part in the intramural program of the Department of Physical Education and Athletics.

Other activities were enjoyed by students, faculty, and visitors through the services of the Minnesota Student Unions. More persons took advantage of the services of Coffman Memorial Union, the St. Paul Campus Student Center, the Kirby Student Center at Duluth, and the Village Union for married students and their families during this year than at any other previous time. In addition to the thousands of students, staff members, and visitors who used the services of the unions daily, many community organizations availed themselves of the union facilities and programs.

The staff of the Office of the Dean of Students continued to serve the students, the faculty, and people of the state through personal services to individuals and through coordination of the University student personnel services.

Maintenance of the health of this large University community is the major task undertaken by the University Health Service. This involves everything from investigating student rooming houses to inspecting University-operated food services, from individual medical examinations to checking radioisotope requisitions.

During the year more than 13,000 complete medical examinations of staff members and students were performed, and the number of students coming to the Health Service for medical care and counseling continued to increase. More than 3,000 students came to receive injections of the Salk vaccine against poliomyelitis, bringing the number of students protected to about 80 per cent of the total enrollment.

In addition to the services it sponsors for on-campus students, the University also provides the principal center for its former students in the Minnesota Alumni Association, on the Minneapolis Campus. In 1959-1960, its membership reached a total of 16,810. Alumni of the University of Minnesota rank with parents of University students as its most loyal supporters; many of them actively participate in a program of service to the University, to their communities, and to the state. The UMD Alumni Association launched a plan in October to raise \$180,000 for a 4,000-seat stadium on the Duluth campus.

In special ceremonies this year 22 alumni received the University's Outstanding Achievement Award in recognition of their contributions to various fields of endeavor. And, at the Charter Day Luncheon on February 25, a new award was initiated in recognition of service given to the University or to the Minnesota Alumni Association by alumni and former students. Six alumni received the Alumni Service Award during this first year of its presentation.

SPECIAL EVENTS

Many University events attracted headline attention during the academic year July 1, 1959, through June 30, 1960. However, the event that appropriately received major attention throughout the state was the election of a new University president. During the year the Board of Regents, with the aid of its own committee, and faculty and alumni consultative committees, held numerous sessions to discuss the selection of the ninth president. Regent Ray J. Quinlivan, Chairman of the Board, said "We want a man who has great administrative ability and . . . scholastic stature."

In February the student newspaper, The Minnesota Daily, issued the fourth extra of its history to announce with newspapers throughout the state that the man had been found. Dr. O. Meredith Wilson, President of the University of Oregon since 1953, agreed to assume his post as President of the University of Minnesota on July 1, 1960. He was to be the first University president to reside at "Eastcliff," the Georgian colonial home on the Mississippi River Boulevard in St. Paul, given to the University by the Edward Brooks family.

The retiring president was honored at a special dinner on the eve of his retirement and at many University of Minnesota Week celebrations in

February. The week's events, sponsored by the Junior Chamber of Commerce, the Minnesota Alumni Association, and the Department of University Relations, included a special Charter Day observance of the president's fifteen years of service to the University.

Also retiring at the close of this academic year was Dean Theodore C. Blegen, who saw the Graduate School attain national and international acclaim for its teaching, research, and public service programs during his 20 years as its dean. Dean Blegen was honored in January for his 37 years on the University staff by a conference on immigration, his special field of interest in history; papers from this conference will be published by the University of Minnesota Press. Dean Blegen was the logical choice to deliver the Cap and Gown Day Convocation address, traditionally given by a distinguished faculty member who is retiring.

The University suffered a great loss upon the death of Mr. George W. Lawson on September 23. Mr. Lawson, a former secretary of the Minnesota Federation of Labor, was a second vice president of the Board of Regents for 18 of his 26 years of service. The Governor of Minnesota appointed Mr. Robert E. Hess, AFL-CIO executive vice president, to replace him.

During the year the Regents added a new administrative position, raising the number of University vice presidents to three. Mr. Stanley J. Wenberg, assistant to the president, was promoted to the newly-established position of Vice President and Administrative Assistant to promote more continuous cooperation with the Minnesota Legislature and stronger relations with foundations and with other educational institutions and organizations throughout the state.

Vice President Wenberg joined Malcolm M. Willey, Vice President of Academic Administration, and Laurence R. Lunden, who completed his first year as Vice President of Business Administration on June 30, in helping the president to carry out the many and complex administrative functions.

The Regents Award

Special ceremonies were held during the year to present the highest award bestowed by the University of Minnesota, in recognition of benefaction, fidelity, and leadership. This, the Regents Award, was presented on August 23 to the Minnesota Department of the American Legion and its Auxiliary. The Legion, in memory of Minnesota men and women who served their

country during both World Wars, had previously established the American Legion Memorial Heart Research Professorship, to study the cause, prevention, and treatment of rheumatic fever and heart disease.

On September 20 the Regents Award was presented to the Veterans of Foreign Wars and its Ladies Auxiliary for their leadership and contributions, which made the Veterans of Foreign Wars Cancer Research Center possible. Then, on November 3, the Regents Award was presented to Mr. H. Rowatt Brown, during dedication ceremonies of the augmented carillonic bells which he gave to the University in memory of his wife, Frances Miller Brown. The bells sound hourly throughout the Minneapolis campus from the roof of Northrop Memorial Auditorium, and a special concert on the Brown Bells is played daily during the week.

The Variety Club of the Northwest received the Regents Award on January 19 in recognition of its contributions to the building and development of the Variety Club Heart Hospital.

Expansion Plans and Activities

The Regents worked throughout the year on plans for urgently-needed University expansion programs. Conservative estimates made on the basis of numerous studies indicate that University of Minnesota enrollment on collegiate campuses will

reach well over 40,000 before 1970. The University is already in desperate need of space. Measures must be taken to alleviate crowded conditions which hamper research activities and sometimes make it necessary for students to stand or sit on the floor in some classrooms. Because of crowded study areas, students must often sit on the stairways in Walter Library to do their assigned reading.

A number of measures have been taken by the University administration and the faculty to alleviate this situation. The collegiate campus at Morris, the development of the west bank of the Mississippi River in Minneapolis, and building and rehabilitation programs on established University campuses and areas will help.

Finding that there was a vacuum of higher education facilities in western Minnesota, as contrasted to the eastern half of the state, the Regents decided on October 31 to proceed with a first year collegiate liberal arts program at Morris beginning in the fall of 1960. Since 1910 Morris has been the home of the University's West Central School of Agriculture, which now occupies 17 major buildings and 19 minor structures. The Regent's decision to establish a collegiate campus at Morris was also determined by the presence of these appropriate facilities,

as well as by the promising potential for collegiate enrollment and the drop in attendance at the School of Agriculture. The 269 School of Agriculture students who entered Morris in the fall of 1959 will be carried through to completion of their course in 1963. After that, the West Central School of Agriculture will conduct short courses and other adult training, while the Agricultural Experiment Station will continue to carry on full-scale agricultural research. The campus is now known as the University of Minnesota, Morris.

Especially significant in regard to alleviating space problems on the Minneapolis campus is the development of the West Bank area directly across the Mississippi River from the present campus. Among actions that occurred this year in connection with the move was the completion of the first phase of the land acquisition program with funds made available by the Legislature. The 1959 Legislature also appropriated more than \$7 million to begin construction in the West Bank area of a general purpose classroom unit and office buildings for the College of Science, Literature, and the Arts and for the School of Business Administration, and heating lines and tunnels. Present construction plans call for a 19-floor, tower-like SLA office building and a twelve-floor tower structure for School of Business Administration offices. The classroom unit will contain facilities for both large and small classes.

This first construction, in a building program which will produce departmental building clusters at both bridgeheads, is expected to be completed by the fall of 1962.

The University is also working with the city of Minneapolis and the State Highway Department on plans for a two-level bridge spanning the Mississippi River. It is hoped that this bridge, which will also link the east and west sides of the Minneapolis campus, will be ready by the fall of 1963. The bridge will carry vehicle traffic on the lower level and pedestrian traffic on the upper level.

Other expansion plans this year involved the University's regular building and maintenance program carried on under legislative appropriations. During 1959-1960 a number of structures were completed and occupied on the Minneapolis and St. Paul campuses and at the Schools of Agriculture.

In addition, major rehabilitation programs were being carried out, in accordance with a ten-year program established in 1955, and with special funds provided by the Legislature, in seven Minneapolis campus buildings and three St. Paul campus buildings. Funds from the National Institutes of Health of the U.S. Public Health Service and from the Hormel Foundation made possible the construction of a new Hormel Institute Laboratory building at Austin.

Changes in the Institute of Agriculture

The Institute of Agriculture has undergone a number of important changes necessitated by the striking technological, economic, and social trends in the various areas with which the Institute is concerned. For example, while farm census figures show that the number of farms in Minnesota has decreased, the size of farms has increased, and the amount of capital required for the operation of a farm continues to increase. Furthermore, with the decrease in farm income, the agricultural industries need more than ever before, and have requested, the assistance that can be given by the University of Minnesota. The need for well-trained people both for the operating and scientific sides of agriculture, forestry, home economics, and their related industries is more pressing and important than ever before.

Reflecting these changes and needs, the Schools of Agriculture are going through a period of change, perhaps the most striking and drastic that has occurred since the first School of Agriculture was established on the St. Paul campus in 1888. Other educational programs, especially the vocational programs in agriculture and home economics, are helping to fulfill the needs which necessitated the sub-collegiate schools during the last decade of the nineteenth century and the early years of this century.

As a consequence the decision was made this year to discontinue the School of Agriculture on the St. Paul campus as well as the West Central School of Agriculture at Morris. The Institute, of course, will continue certain of its programs at the University of Minnesota, Morris, within the University framework, and will continue its responsibility for the West Central Experiment Station there.

Discontinuance of the St. Paul School of Agriculture, which has served more than 32,000 students since it was established 72 years ago at the request of farm organizations and farmers for practical training in agriculture and home economics, is designed to meet the increasing demand on the part of students and alumni for college work and college credits. On May 12, 1960, the Board of Regents approved the recommendation that the School of Agriculture program be changed to college-level instruction beginning in the fall of 1960. Under the new plan, the College of Agriculture, Forestry, and Home Economics will offer a Technical Certificate Program in Agriculture for students who satisfactorily complete 60 credits of course work selected from a wide variety of course offerings in the College.

Continuing needs evidenced elsewhere mean that the Schools of Agriculture at Grand Rapids, Crookston, and Waseca will continue to function as usual. And, of course, the important short courses will continue at these schools as well as on the St. Paul and Morris campuses.

The University of Minnesota, Duluth

The twelfth anniversary of the University at Duluth was the occasion this year of one of the main events: the "University of Minnesota, Duluth Branch," officially became the "University of Minnesota, Duluth." The entire University could say at the time, "The Duluth campus has become a highly respected and progressive member of the University family. Its faculty and staff, its physical plant, and its student body are a credit to the whole institution. The attitude of the entire Northeastern Minnesota region toward the Duluth campus bears out that it has achieved true maturity and regional identity."

Service to Seoul National University

Another significant anniversary this year fell in February. It was the sixth anniversary of the University of Minnesota mission to Korea, the recommendations of which resulted in a contract between the University and the Foreign Operations Administration (now called the International Cooperation Administration) to strengthen the teaching, research, and public service activities of Seoul National University and to give advisory assistance to the National Officials Training Institute, operated within the Office of General Affairs of the Republic of Korea.

As of April, 1960, nineteen Minnesota staff members were in Korea carrying out Minnesota's ICA program. Since the program began, 52 Minnesota

staff members have served or are serving in Korea, while 212 Korean faculty members have studied in the United States. Of the 55 here now, 50 are studying at the University of Minnesota.

At present, the University of Minnesota is actively involved in building up programs in Seoul National University's Colleges of Agriculture, Veterinary Medicine, Engineering, Medicine, and the School of Public Administration in the College of Law. In addition to its contract operations, the University of Minnesota in 1960 received a grant from the Rockefeller Foundation to purchase music and art materials for the Korean University's College of Fine Arts and Music.

Intercollegiate Athletics

Another event which made news during the year was the University's intercollegiate athletic program. In December a seven-point statement of policy on intercollegiate athletics was unanimously adopted by the University Senate, composed of some 160 faculty members, reaffirming the stand that "intercollegiate athletics are a challenging and valuable part of the total enterprise of the University." It is made clear that the University will encourage qualified student participation in

intercollegiate athletics and that, to protect the collegiate character of the program, participation is restricted to regularly-enrolled students who meet prescribed academic standards. "The academic work of the student," the policy statement emphasizes, "takes precedence over athletic activity."

While athletic policy attracted public attention, the intercollegiate athletic program itself attracted an all-time record of participation and interest. The baseball team repeated its 1956 performance of winning the Big Ten Championship and the Region IV Tournament, qualifying the team for the NCAA finals at Omaha where it won the World Series of college baseball, the NCAA championship.

The Loyalty Oath

One of the big issues of the year that resulted in everything from petitions to televised debate was the stipulation in the National Defense Education Act of 1958 that in order to get federal loans, students had to sign a loyalty oath and disclaimer affidavit. The administration of the University has repeatedly taken a stand against such oaths, believing intellectual freedom is the bulwark, the stronghold of all freedom, and believing that it is unfair to single out students or teachers

as special classes subject to a test that implies suspicion -- suspicion of institutions that, by their very nature, foster the spirit of freedom necessary to further the search for truth. This spirit is intrinsically opposed to totalitarian ideologies. The Board of Regents unanimously voted to "work for removal" of the Act's stipulation involving a loyalty oath and disclaimer affidavit.

Fee Increases

Rising institutional costs, and a Legislative mandate to raise needed money through tuition increases, have necessitated continuing rises in the cost of securing an education. In April the Board of Regents included \$1.50 for

library books in the student incidental fee, effective in the fall of 1960. The incidental fee was also raised an additional \$1.50 for the University Health Service.

These increases are of serious concern to a state university which by charter was instructed that, as soon as the Board of Regents determine "the income of the University shall permit, tuition in all the departments shall be without charge to all students . . . who are residents of the territory." Times may have changed that optimistic hope, but some solution needs to be worked out so that our democratic philosophy of an educated citizenry will not be negated by prohibitive tuition fees in a public educational institution.

LOOKING AHEAD

More and more demands are being placed upon the faculty, not only for teaching increasing numbers of students the ever-increasing amount of complex material produced by modern technological, scientific, economic, sociological, and political developments, but also for research and community service. Requests from such community interests as agriculture, medicine, business, and industry for vitally needed information have increased the University's research activities to phenomenal proportions. In the future, to remain in the forefront as a great land-grant institution of higher learning, the University of Minnesota must maintain areas of competence developed in the past and must also move into new areas of research and study.

In addition, the University is already facing stiff competition for faculty, with many of its institutes, colleges, and schools this year losing faculty to other institutions offering higher salaries and finer research resources. With salaries rapidly increasing at a number of institutions, the need is greater than ever for adequately providing the University of Minnesota faculty with satisfactory teaching and research facilities, equipment, salary arrangements, and fringe benefits.

The University recognizes that it must share in the economic problems faced by the state as

a whole in an era in which so many complex and far-reaching technological changes and world crises place such heavy burdens upon the economy. It is apparent, however, that the public recognizes that the University has a vital role to play in helping the state and nation to meet the challenges of this new era. This report gives some indication of the thousands of requests for assistance which the University receives daily from a concerned citizenry. The people of Minnesota have given ample evidence that they recognize the paramount importance of maintaining and strengthening the University's three-fold purpose of teaching, research, and public service.

For the University must give the state of Minnesota well-qualified administrators, teachers, doctors, scientists, engineers, farmers, and businessmen. It must give the state of Minnesota research resources adequate to the demands of a citizenry that seeks solutions to problems involving our economy, our government, our lives. It must give the state of Minnesota the medical, technical, and cultural services and opportunities it needs to fulfill the requirements of citizens who have more than demonstrated their desire to utilize those services that the University now provides.

Handicapped by budget worries, the University, oftentimes on the basis of personal sacrifices on the part of its faculty and staff, nonetheless continues to fulfill its three-fold purpose,

encouraged by the cooperation and financial assistance it receives from individuals, private foundations, businesses, industries, unions, state and national government agencies, and various other kinds of organizations. It is a reciprocal assistance, a recognition that the University and the people of Minnesota and of the nation are working toward mutually beneficial goals.

There are, however, many needs yet to be met and many problems yet to be faced. Much planning is being done by the University administration, faculty, and staff in cooperation with a concerned citizenry to meet these

needs and solve these problems so that the University of Minnesota can continue to fulfill the obligations for which it was established, keeping always in mind the knowledge that it was

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