

University of Minnesota

# BIENNIAL REPORT

of the President and of the Board of Regents

1952 - 1954

to the

Legislature of the State of Minnesota

Approved and Adopted by the Board of Regents

June 30, 1954

## THE BOARD OF REGENTS

	Term Expires
JAMES F. BELL, Minneapolis - - - - -	1957
DANIEL C. GAINEY, Owatonna - - - - -	1955
RICHARD L. GRIGGS, Duluth - - - - -	1957
*MARJORIE J. HOWARD, Excelsior - - - - -	1959
*J. S. JONES, St. Paul - - - - -	1959
GEORGE W. LAWSON, St. Paul - - - - -	1957
LESTER A. MALKERSON, Minneapolis - - - - -	1959
CHARLES W. MAYO, Rochester - - - - -	1959
KARL G. NEUMEIER, Stillwater - - - - -	1959
E. E. NOVAK, New Prague - - - - -	1955
A. J. OLSON, Renville - - - - -	1955
RAY J. QUINLIVAN, St. Cloud - - - - -	1957
HERMAN F. SKYBERG, Fisher - - - - -	1955

\* The 1953 Legislature re-elected J. S. Jones to a six-year term, expiring in 1959. Following his death on February 7, 1953, the Legislature elected Marjorie J. Howard of Excelsior to succeed him.

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# THE PRESIDENT'S REPORT

*To the Honorable Board of Regents  
University of Minnesota*

GENTLEMEN: I have the honor to submit herewith a report covering the operations of the University of Minnesota for the biennium ended June 30, 1954.

The pages that follow this first section, in which I make some observations of my own, contain reports by the deans and other administrative officers on the manifold activities of the University. Here are to be found the facts and the figures that taken together are graphic evidence of the services of the institution to the people of this state. They are evidence, too, I believe, of the vitality that characterizes the University, and gives to it the unquestioned eminence it enjoys in the academic world. From the details in which these pages abound will emerge for the patient reader a better understanding of this vast cooperative enterprise—your University.

Let me express, at the outset, my respect and appreciation to my many colleagues whose description of the work and the problems of their individual departments constitutes the body of this report and illuminates the commitment of the faculty and staff to "the advancement of learning and the search for truth; the instruction of youth and the welfare of the state!"

This report is, in every sense, an accounting of a stewardship entrusted by the people of Minnesota to the Board of Regents, and through them to the entire staff of the University. That is why I hope that it will be widely circulated, widely read, and thoughtfully considered. I know I speak for the Regents when I say that all of us want the people of Minnesota to understand their University—the services it performs, its accomplishments, its needs, its problems.

Any two years in the life of this University are filled with activities and occurrences of great importance. No report could possibly encompass them all. Accordingly we must be selective in the presentation here. But among all of the many subjects that press for discussion, one looms larger, more significant, and with greater ramifications at just this time than all others. I refer to the increases in enrollment. Already these are manifest, but the full impact of the trend that is now under way will not be felt for some few years to come. So important is this subject that I propose to devote the major portion of my own section of this report to a review of it.

**The Load Ahead**—No one can study population and birthrate figures without becoming aware of their implications for higher education throughout the entire nation, let alone in Minnesota. Recently reported population data for the 48 states and the District of Columbia reveal that the number of persons—young men and women—in the college age group, that is, 18 through 21 years, in 1953 was 8,001,654. By 1960 this number is expected to increase by 16 per cent to 9,273,157. By 1965

the 1953 figure will have increased 46 per cent to 11,669,949. By 1970 the total will be 13,609,831—an increase of 70 per cent over 1953.

But it is not national figures that are of first concern to us. What we wish and need to know are the corresponding data for our own state. How many college-age youth will there be in Minnesota in the years ahead? It is these youth who will constitute the source from which flows to the colleges, and to the University of Minnesota, the enrollments for which provision must be made in teachers, in physical facilities, in equipment, in all the myriad items that go into the instructional process.

In 1953 there were about 173,000 young men and women in Minnesota between the ages of 18 through 21. The best population estimates indicate that this number by 1960—only six years away!—will increase to 205,000—an increase of 18 per cent. By 1965 the estimate is for 240,000 youth of college age in this state—an increase of 39 per cent over 1953. If we jump ahead to 1970, the estimated number of college-age youth in Minnesota is slightly over 291,000—an increase of 69 per cent over 1953. These phenomenal increases represent the simple fact of increased birthrate. These are the potential college and university students who actually find their way into the classrooms.

What percentage of college-age youth, 18 through 21, actually does attend college? Back in 1900—just a half century ago—the national figure was 4 per cent. Four out of every hundred young people of college age actually enrolled in an institution of higher education. This percentage figure has approximately doubled with each succeeding generation of 20 years. Whereas in 1900, 4 out of a hundred went to college, in 1920 slightly over 8 did (8.1 per cent). In 1940, 15 out of a hundred of college age actually were enrolled (15.4 per cent). In 1950 the number was 27 out of a hundred (27.3 per cent). In 1953, there was still further increase, to 28.2 per cent, even during the Korean war.

What do these national trends mean when translated into figures for Minnesota? What will Minnesota enrollments be in 1960 and thereafter if 28 per cent of college-age youth in this state actually do attend some college? Here are the striking prospects of future college attendance:

1960—57,703  
1965—67,672  
1970—82,170

These figures are derived by applying to the population data for the given years a percentage that represents the proportion of college age *attending college in 1953*.

But there is no reason to assume that the proportion of college-age students going to college, which has doubled every two decades since 1900, will not continue to increase. In fact, there are compelling reasons to argue that it will. Were we to assume a continuing increase in the percentage of college-age youth actually enrolling of only 1 per cent a year, our estimates of future attendance in this state would be:

1960—61,800  
1965—75,800  
1970—86,300

These seem to me reasonably conservative figures. There are many factors that will contribute to the growth of college attendance in the

decades before us. Among these is the pronounced tendency of business, industry, and government to require more and more education as a prerequisite to employment. Furthermore, it is understandable why more parents each year desire to provide their children with greater educational opportunities than they themselves secured. Still another factor, the provision of veterans' training, has made possible college attendance for larger numbers of youth than might normally afford such training. GI education benefits have been a stimulant also to non-veteran youth, and will have a further effect in increasing the likelihood that they, as parents, will expect to provide nothing less for their own children than they themselves secured in the way of educational opportunities. Still another factor is the continuous increase in the percentages of students completing Minnesota high schools. And it is the high school graduates that constitute the reservoir from which college enrollment is drawn. These four factors, it would appear, are likely to accelerate future college enrollments somewhat beyond the normal estimates given above.

One may argue about the absolute accuracy of these predictions. The figures may be on the high side; they may likewise be low. The fact remains, however, that all signs point to an enormous increase in the number of college students in Minnesota. It matters little whether these particular figures are a few thousand one way or the other from the eventual actualities. They *are valid signs of the job to be done*. Surely they suggest some questions that call for serious consideration now.

**Where will these Minnesota youth go to college?**—Past experience establishes that the University has provided for approximately one half of the students who attend college in Minnesota.

There is nothing to make one believe that in the future this proportion will be less. The likelihood is that it may be higher. The private colleges have always played an important and significant role in the education of Minnesota youth, but in many ways they have less flexibility with respect to their admissions than the University. They face somewhat different problems in plant resources, in fiscal resources. While private institutions can, even though reluctantly, put ceilings on their enrollments, it is difficult indeed for the University, in the face of demands for admission, to refuse to accept qualified students. It did not do so in the years immediately following World War II; it cannot do so when the normal population increases again bring vast numbers of students to its doors, I believe.

**For what size student body must the University prepare?**—An estimate of 42,500 by 1970 seems not at all unreasonable, bearing the earlier figures in mind. Even a straight projection of current attendance would indicate more than 35,000 students. By and large the enrollment prediction data that the University has worked out from year to year, for use internally as well as for legislative purposes, have been satisfactorily close to the facts.

Student attendance in 1960 will very likely press or top 30,000. The upward trend, following the drop-off after the veteran bulge in the late 1940's, began with the fall quarter of 1952-53. Again in 1953-54, as tables

in this report show, there was further increase in student numbers. We confidently expect that there will be at least 19,650 students attending in the fall of 1954-55, and an average of 21,250 for the biennium 1955-57. The upward trend is apparent, and the trend is an accelerating one.

**Are these future enrollments of a temporary nature?**—Following World War II, enrollments jumped to an all-time high at the University, but subsequently declined. That is easy to understand, for the bulge represented a backlog of students who had been in uniform, and were released within a short space of time following the cessation of hostilities. They flooded college campuses everywhere. But the figures with which we are dealing here involve no such backlog; they do not reflect a sudden release of deferred educational ambitions. As a matter of fact, enrollment of veterans at the University has now apparently stabilized at between 2,000 and 3,000 as the World War II veterans pass from the scene and Korean veterans replace them.

It is primarily new, nonveteran freshmen who are pushing the figures up and will continue to do so. The enrollment predictions I have presented here, it must be re-emphasized, represent, not a new veterans' bulge but rather, a normal trend that follows increases in the birth rate; the intensification of desires on the part of parents that their children should have a college education and the advantages that are associated with it; a similar consciousness on the part of the youngsters themselves that there are real advantages in a college education; and the underlying demands of industry, business, and the professions for more and more education on the part of those they accept.

The load ahead, then, is a continuing one. It is something to be faced and prepared for. This point must be underscored as we of the University, the Legislature, and the people of the state think of the future. To be sure, in the fall of 1947 we did enroll 28,646 different students, but as one looks back on that trying period he realizes how unsatisfactory were many of the adjustments that had to be made. All kinds of expediencies were introduced to meet the exigencies of the situation. Class sizes were increased in many instances beyond all reason. Important teaching responsibilities were imposed on instructors who were not fully seasoned—although the way in which they rose to the occasion fills one with pride. Many staff members taught right around the calendar. Daily schedules were stepped up. A loyal staff gave its utmost to make certain that Minnesota youth could realize their educational opportunity.

As a temporary measure such adjustments could be made—but only with the knowledge that they were temporary. I am confident, though I have never said this publicly before, that had the post-war load continued for another year or two, there would have been a serious reaction among students and staff at the University of Minnesota; the strain, had it continued much longer, would have reached either a breaking point, or a critical demonstration of the law of diminishing returns.

Two factors enabled us to do the job that was done in that hectic post-war period: one was the devotion of the staff, faculty and civil service alike, to the institution and to the state that has loyally sup-

ported it. The sense of obligation manifest by everyone during those difficult months was magnificent; indeed, heroic.

The other factor was quite different in character: the student body during these peak years consisted preponderantly of freshmen and sophomores—beginning students who can in some measure be instructed in larger groups, since the content of beginning courses ordinarily calls for less intimate, less personal instruction. One can teach American history to a group of a hundred and more students by the lecture method. One cannot teach advanced courses in engineering, accounting, statistics, or any other specialized field, on a mass basis.

I mention this especially because when the load comes within the next few years, it will not be as a flood of beginning students; it will be a load that is built up gradually and distributed normally among both advanced and more elementary levels of collegiate instruction. To meet such a load, to meet the requirements of advanced instruction, calls for more and better prepared staff, dealing with students in smaller classes.

**Planning for the Future**—All of this inescapably adds up to the fact that the University, and the people of the state as represented in the Legislature, must now begin planning to meet the increased and continuing student load that lies ahead. These plans cannot be formulated as emergency adjustments, but must be devised on a permanent, long-term basis.

In realization of this, the University, for its part, has during 1953-54 initiated a self-survey so that it may learn just what it has to face, college by college, department by department. The old Socratic injunction, "Know thyself," is being taken with an impressive seriousness by every member of the staff. Out of this self-analysis unquestionably will come a better comprehension of the problems that confront us in adapting our program of instruction, research, and service to the needs of the state.

But it is not enough for the University administration and staff to recognize and identify their problems. The people of Minnesota must also understand the basis of the University's future needs, for in the final analysis support must come from them.

**The Nature of the Needs**—These needs, of course, basically, involve men, buildings, and equipment.

To carry the burden of teaching that the figures foretell, there must be a competent faculty, supported by the essential civil service staff. A university faculty cannot be recruited on over-night notice. Faculties need to be built with care. This requires time—time measured not in months but in a span of years. That is why it is imperative that even now the resources should be made available to begin this process of building staff for the future. In this connection, too, it must be remembered that every other college and university in the land will be confronted with a similar student load and a corresponding need to staff for it. I predict that the next decade will show some of the most intense competition, especially for faculty, that the American academic world has ever known. The University of Minnesota must be in position to meet this competition, at least to engage in it on equal terms.

A second great need is for physical space. Again the inadequacies of the post-war period rise to haunt one's mind. Temporary structures were available from federal sources and helped to some degree; many of these structures have now outworn their usefulness; some have actually been demolished. Careful study of the University space problem shows that as of the present time, never was there greater pressure upon space. To be sure, many new buildings have been constructed, but in general these are of a specialized type—the Mayo Memorial would be one example, the veterinary buildings would be another—and they do not, accordingly, do much to relieve the constantly growing need for general purpose use.

Finally there is the need for equipment—the underlying and supporting tools with which men are enabled to accomplish their jobs. Modern instruction and research necessitate equipment that grows greater in complexity, and cost, each passing year. Here I use the word “equipment” broadly to include books for the libraries, machines for the laboratories, as well as supplies of multitudinous variety for the instructional programs. The mere fact of more students means more equipment must be available.

In all this discussion I have concentrated my observations almost entirely upon the instructional problems. There is another inescapable obligation involving the field of research. The increasing demands in this area—and I shall not here elaborate upon them—likewise call for added staff and for added space for adequate equipment.

The University of Minnesota, as a leading public institution, with a superlative staff in many areas of human endeavor, cannot ignore the requests that come to it for assistance that can be rendered only through the solution of problems by research. The federal government, the state government, the military services, industry, both in this state and beyond its borders, have besought the University's aid in pursuing research studies of a basic and fundamental nature.

Research is a primary function of a University, and the University of Minnesota must fulfill that function. Think what that fulfillment has meant to this state in such typical projects as the taconite development, the development of disease resistant wheat, the successful breeding of new varieties of fruit—and many more that could equally well be mentioned! Think, too, in human terms, of the outcomes of research as represented in successful heart surgery, or cancer detection! Who can believe that the intensification of research that has characterized the past decade will lessen in the decades ahead? One can only believe there will be further intensification. The University and the state must prepare for this lest they both fail to maintain the advantages that present policies of support have made possible.

**Universities as “Thinking Devices”**—It has been said that “Universities are the thinking devices of society.” We must believe this, or how else can we explain the fact that, in the United States today, vastly more is invested in higher education than in any other nation? And the results of this expenditure are presented forcefully in the opening paragraph in a recently-published and highly significant report on “America's Resources for Specialized Talent” in these words:

“With only 6 per cent of the world's land and 7 per cent of its population, the United States publishes 27 per cent of the world's newspapers,

owns 31 per cent of all radio and television sets, produces 40 per cent of all electric power, uses 58 per cent of the world's telephones, and drives 76 per cent of its automobiles."

The report goes on to say that "A nation with as complex an economy, as important a role in world affairs, and as tangled a web of social, economic, military, and technological problems as confront the United States, is peculiarly dependent for its future welfare upon those of its citizens who are competent to work effectively with ideas."

Is more evidence needed to demonstrate the importance and the results of trained intelligence in a free society—in a society that is enormously inventive and resourceful because it is free and because it has encouraged education?

Only in Russia among the other nations has there been anything like the American realization that "knowledge is power" and that the support and control of education do shape a society. There, the numbers and percentages of youth selected for advanced training is pyramiding—but there is no freedom in the process such as we enjoy. Selection of students is based upon the most rigid standards, with the choice of studies and careers largely enforced by the state. In America, unlike Russia and beyond any other nation, we have never attempted to control education. Rather, it is our belief that education and democracy are indivisible—and we have built our schools and colleges in that belief.

There is an old saying that coming events cast their shadows before them. I have thus far in these pages been seeking to call to attention the nature of the shadow that to my mind is more portentous than all others insofar as the University is concerned. It is a shadow that cannot be ignored. If we prepare now for the events that it forecasts, we can meet the future with faith in our own strength. Failure to heed the inner meanings of the shadow as represented by the enrollment data I have introduced can only result in tragic failure to maintain the high standards of instruction, research, and public service that for so long have been the distinguishing mark of the University of Minnesota.

**Other Items and Activities of General Interest**—In the remaining pages of this section of the report, I wish to call to special attention selected events and items that typify the University at work, or are indicative of activities that contribute to the on-going of the University's program.

**Host to UNESCO**—The Fourth National Conference of the U. S. National Commission for UNESCO took place on the University campus, September 15-17, 1953. Held in conjunction with this Conference was the Twelfth Annual Meeting of the U. S. National Commission for UNESCO, September 14-15.

The Minnesota Sponsoring Committee for these two significant gatherings consisted of one hundred members, headed by Harry A. Bullis, and included the four Minnesota members of the U. S. National Commission for UNESCO: Carroll Binder, Julius M. Nolte, Elvin C. Stakman, and David J. Winton. Two of these are members of the University Faculty: Julius M. Nolte, dean, General Extension Division; and Elvin C. Stakman, chief, Division of Plant Pathology and Botany. Subsequently a third Uni-

versity staff member, Vice President Malcolm M. Willey, was appointed to the National Commission.

My own service as chairman of the U. S. Advisory Commission on Educational Exchange of the U. S. Department of State, has heightened my understanding of the importance of the work of UNESCO in building better relations among the nations of the world through educational, scientific, and cultural exchanges of individuals and information.

**James Ford Bell Room**—A unique and magnificent gift to the University came from Regent James Ford Bell. It is a specially constructed room in the Library for the purpose of housing the priceless collection of Americana assembled over the years by Mr. Bell. Although this collection is not a large one, the quality of its contents is superlatively high, and it is regarded by scholars the world over as of vast importance. The University is proud indeed that this collection is on deposit; it is likewise proud that it is housed in such beautiful and appropriate quarters.

The James Ford Bell Room (so designated by the Regents) is, generally speaking, of the Elizabethan Period. The stained glass window in the south wall is likely to strike the visitor's attention first. Since its primary function is to let in light, it contains few dark colors, although it displays bright heraldic blazons here and there; rather, its interest lies in small, scattered pictures which depict the life of the era. The librarian, the soldier, the schoolmaster, the astronomer, and the chimney sweep appear in their quaint costumes; also portrayed are objects familiar to the contemporary occupants of the room, such as: a ship, a gig, a chained library, a windmill, and a lamp.

Hand-carved linenfold paneling of English oak lines the walls, above which is a plaster ceiling that bears the signs of the zodiac. The stone fireplace is English 16th century Gothic; it has Saint George and the Dragon flanked by two saints carved on the over-mantel. The carpet with its soft reds, blues, and greens was made in Persia in the 18th century. Scattered about the room are numerous antique chairs upholstered in old needle-point or in Genoese silk velvet of the 16th century. Various tables, chests, sofas, and lamps of early origin constitute the other furnishings. Particularly interesting are a Louis XIII sofa still covered in its original needle-point and two English coffin stands of the 16th century, which now serve as sidetables.

To the right of the entrance is an air-conditioned vault in which the collection's books, manuscripts, and maps are stored when they are not in use.

The Bell Room was dedicated on October 30, 1953 in ceremonies that included a symposium on book collecting and scholarship (the papers in which are to be published by the University of Minnesota Press) and a banquet at which Edward Weeks of the *Atlantic Monthly*, Mr. Bell, and the President spoke, focusing on "Adventures in the World of Books."

During the biennium the University Library also received from Mrs. Werrett W. Charters a distinguished, and in some items an amusing, collection of materials pertaining to Paul Bunyan, collected by her late husband.

The University Library has been fortunate in the gifts that have come to it. Through the Friends of the Library there is developing a wide in-

terest in the Library and its collections. Frank Leslie, the president of the Friends, himself a collector and lover of fine typography, is taking deep interest in the Library and is providing for the Friends organization a stimulating leadership.

**Changes in the Board of Regents**—The 1953 Legislature re-elected three members of the Board of Regents to six-year terms: J. Seneca Jones, St. Paul; Lester A. Malkerson, Minneapolis; and Charles W. Mayo, Rochester. At the same time it elected Karl G. Neumeier, Stillwater attorney and former State Senator, to replace Sheldon V. Wood, Minneapolis.

The death of Regent Jones, ten days later, left a vacancy on the Board, which was subsequently filled by the election of Marjorie J. Howard, Excelsior.

**Tenure Regulations Revised**—The first published code governing faculty tenure at the University of Minnesota was approved by the Board of Regents on February 9, 1945. Its administration during the years since it became effective had raised certain procedural questions and revealed some ambiguities, and it seemed possible that others might appear were the document to be given careful study. Consequently, the President, with the consent of the Senate, requested the Tenure Advisory Committee to review critically the existing code and present a proposed re-draft for consideration and recommendation to the Senate and the Board of Regents.

The Tenure Advisory Committee, under the chairmanship of Vice President Malcolm M. Willey, held sixteen meetings between November 26, 1951 and April 7, 1952. During the course of its analysis the Committee held meetings with the Administrative Committee, the Judicial Committee, and officers and representatives of the American Association of University Professors.

The revised code entitled "Regulations Concerning Faculty Tenure" was adopted by the University Senate on May 15, 1952 and transmitted to the Board of Regents by whom it was approved on July 11, 1952.

In many respects the University of Minnesota Tenure Code is a model as is evidenced by the numerous requests for copies that have been received from other universities and colleges since the original code was put into effect. The existence of a clearly-defined code that sets forth specifically the reciprocal privileges and obligations of faculty members and the Board of Regents unquestionably contributes greatly to the morale of the staff and provides conditions under which the faculty can do its most effective work.

**New Senate Constitution**—A new constitution, changing the University Senate to a representative body, was adopted by the Senate on May 20, 1954 and approved by the Board of Regents on June 12, 1954. Under the previous constitution, adopted in 1912, the membership, which was automatic at the senior rank, totalled 727. The size under the new constitution was expected to become initially approximately 132 members, including 7 members of the Faculty Consultative Committee, 28 members of the Administrative Committee, 26 representatives of junior faculty rank, and 71 of senior faculty rank.

The revised constitution and by-laws blanketed in all previous standing committees of the Senate, using in most instances the exact wording

of the previous by-laws in the definition of membership, duties, and the like, of these committees. It also provided for a new standing Committee on Senate Committees to review the scope of standing committees of the Senate. It further provided that each major instructional unit should have direct representation in the Senate, and that the Senate should meet at least twice each quarter.

**Agricultural Reorganization**—Reorganization of the Department of Agriculture was approved by the Board of Regents on November 1, 1952. A major change was the renaming of the Department of Agriculture as the Institute of Agriculture. This brings the title into conformity with other similar educational units in the University and eliminates confusion with similarly named state and federal agencies. Another change in nomenclature involves the teaching and research divisions which are now known as departments.

No change in functions was involved in the reorganization. The Institute will still include teaching on the college level and in the five schools of agriculture, research, and agricultural extension activities.

The Institute is headed by a dean, who now has five principal assistants: (1) the director of the Agricultural Experiment Station, (2) the director of the Agricultural Extension Service, (3) an assistant dean who serves as director of Resident Instruction, which includes the College of Agriculture, Forestry, and Home Economics and the Office of Short Courses, (4) an assistant dean with functions of an administrative assistant to the dean, and (5) an assistant dean in charge of the School of Veterinary Medicine.

The plan for reorganization, prior to its final approval, was endorsed by the Advisory Council, a body made up of agricultural leaders drawn from the entire state.

**Summer Session Deanship Filled**—E. William Ziebarth, chairman, Department of Speech and Theater Arts, was named by the Board of Regents to the deanship of the Summer Session, effective July 1, 1954. He replaces Dean Thomas A. H. Teeter who retired June 30, 1954, after having headed the Summer Session since 1930. Dean Ziebarth came to the University of Minnesota in 1936 from the University of Wisconsin where he had served on the staff of station WHA. He had earned Bachelor's and Master's degrees from the latter institution and, in 1948, was awarded the doctor of philosophy degree from the University of Minnesota. As a staff member, and in the earlier years also a graduate student, he progressed through the ranks from an instructor in speech to a full professorship. He also held various posts at the University Radio Station, including service as acting manager in 1944 and founder and director of the Minnesota School of the Air. He has served in various capacities for Station WCCO and the Columbia Broadcasting System, and presently is a news analyst on both radio and television for WCCO.

**St. Paul Campus Library**—A new library for the Institute of Agriculture was dedicated on January 14, 1953. This library, representing an investment of \$713,000 made possible through appropriations from the 1949 and 1951 Legislatures, is the first building devoted exclusively to library purposes that the St. Paul campus has had. Since 1907, the Agri-

culture Library had been housed in quarters on the second and third floors of Coffey Hall, utilizing also rooms in other buildings.

The principal address at the dedicatory ceremonies was made by Dr. John A. Hannah, president of Michigan State College. The President dedicated the building and presented outstanding achievement awards to six leading University of Minnesota graduates who have made significant achievements in the agricultural sciences and related fields: Betty Sullivan, Morris J. Blish, Jacob George Harrar, Ralph Melvin Lindgren, Frank F. Marshall, and Herman Alonzo Rodenhiser.

**Peik Hall Dedication**—Peik Hall, the new building that houses the University's laboratory high school, was dedicated at a banquet held in Coffman Union on March 31, 1953. This much-needed addition to the teacher training facilities of the College of Education was named in honor of the late dean of that college, Wesley E. Peik, who had served the University for 27 years, the last 13 years as dean. The building represents an investment of \$1,837,000 and was made possible by appropriations from the 1949 and 1951 Legislatures.

Principal address at the dedication ceremony was given by Roy E. Larson, president of Time, Inc. The President dedicated the building and presented outstanding achievement awards to five alumni of the College: Edna P. Amidon, Luella Bussey Cook, Verne C. Fryklund, William David Reeve, and James Greenleaf Umstatt. Dean Walter W. Cook responded on behalf of the College.

**New Agricultural School Dedicated**—The plant housing the new Southern School of Agriculture at Waseca was dedicated at public exercises on June 19, 1953. These facilities, costing \$1,705,000, were provided by appropriations of the 1947 and 1949 Legislatures. They include fire-proof dormitories, well-lighted shops, and modern classrooms.

The dedicatory address was by Dr. Clyde H. Bailey, dean-emeritus of the Institute of Agriculture. The President spoke on behalf of the University. Special guests at the exercises included Minnesota newspaper editors and publishers and members of the Board of Regents and of the Legislature.

The new school, serving 38 southern Minnesota counties, opened in the preceding January for men students. Enrollment of women began in the fall of 1953 when facilities were ready for instruction in home economics.

The opening of this new facility raises to five the number of schools operated by the University to provide instruction in agriculture and related subjects for a six-month term.

**Lyon Laboratories Dedicated**—Dedication of the new \$725,000 Elias P. Lyon Laboratories took place on February 11, 1954. This building occupies the space between the Anatomy Building and Millard Hall, and provides facilities primarily for the University's extensive research in cancer and heart disease.

Principal speakers at the dedication banquet in Coffman Union were: Dr. C. J. Van Slyke, associate director, National Institutes of Health, U. S. Public Health Service; Mefford R. Runyon, executive vice president, American Cancer Society; Dr. Harold S. Diehl, dean, College of Medical

Sciences; and Vice President Malcolm M. Willey. Dr. E. T. Bell, professor-emeritus of pathology, presided.

Special recognition was given at the ceremonies to the Minnesota Division, American Cancer Society; National Cancer Institute; and National Heart Institute, U. S. Public Health Service, which jointly contributed the cost of the building.

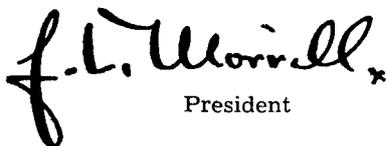
**Duluth Branch**—The much needed \$1,200,000 Student Service Center at the Duluth Branch is now assured. Stephen R. Kirby, on September 18, 1953, made a gift to the Regents of \$400,000 which, together with a contingent appropriation of the same sum by the 1953 Legislature, and an identical amount from St. Louis County, provides the necessary funds. Mr. Kirby, in transmitting his gift, stated that it served as "partial repayment for the happiness and success" he has found "in a rewarding career in northern Minnesota, and as a return for the advantages he has enjoyed in this region." Architects have been working on the plans for several months and contracts are expected to be let about August 1, 1954, with the completion planned in time for occupancy in the fall of 1955.

Dr. Raymond W. Darland began service as provost of the Duluth Branch in the fall of 1953. He succeeded Dr. John E. King who resigned after three years of constructive service to accept the presidency of the Kansas State Teachers College at Emporia.

The Board of Regents, on October 31, 1953, approved the award of the master of arts degree for work at the Duluth Branch. The degree will be awarded through the Graduate School. The program at Duluth provides for majors in two areas: (1) education and (2) curriculum and instruction, both under Plan B (without thesis).

**In Conclusion**—No printed pages can possibly convey the full meaning of a university program, but the faithful reader will unquestionably derive new insights and understandings from the sections that follow. I especially commend to attention the section on Honors and Distinctions. This enumerates the off-campus activities and achievements of the staff in scientific, scholarly, professional, and civic fields of endeavor. It testifies eloquently to the prestige and esteem in which these staff members are held—these men and women who in truth *are* the University of Minnesota. They and their predecessors have made the University what it is today—one of the great educational institutions of the world.

But it is in service to the people of Minnesota, above all, that we of the University find our enduring, our most rewarding satisfactions. Their confidence and support we earnestly desire to deserve. To them let me express the grateful appreciation of the University.

  
President

## SIGNIFICANT EVENTS, ACTIVITIES, AND ACTIONS, 1952-54

**School of Forestry Celebrates 50th Anniversary**—The School of Forestry celebrated its fiftieth anniversary with a dinner in Coffman Union on October 23, 1953. It commemorated the establishment in 1903 of a curriculum in forestry containing seven forestry courses and leading to the bachelor of science degree with specialization in forestry. Actually, the first step in the direction of training in forestry was the proposal to the Board of Regents by President Folwell in 1884 that a School of Forestry be established. Four years later, in 1888, Samuel B. Green became a member of the University staff and the next year the first forestry course was made available to the students in the School of Agriculture. The first college-level course was offered in 1896.

The principal address at the celebration was made by Henry Schmitz, president of the University of Washington and chief of the School of Forestry, 1925 to 1947. President J. L. Morrill spoke for the University and presented a Builder of the Name award to Henry Schmitz and outstanding achievement awards to five outstanding alumni of the School of Forestry: A. Dale Chapman, William T. Cox, Samuel B. Detwiler, Samuel A. Graham, and Charles J. Lewis, Jr. Other speakers included George L. Drake, president of the Society of American Foresters and Frank H. Kaufert, director of the School of Forestry since 1947.

**James Ford Bell Room**—Dedication of the James Ford Bell Room took place at a dinner in Coffman Union on October 30, 1953. This room, a gift from Regent Bell, was constructed to house the world-famous James Ford Bell collection of rare books relating to events which led to the discovery of America and to the exploration and settlement of the Northwest. The trustees of this collection decided to make the University the depository of the collection, believing that in time it will be transferred by deed to the University or to the benefit of some similar educational or public institution. The University is to be given preference in the final decision provided that it demonstrates continuing interest in and support of the collection during the interim period.

Regent Bell, on the occasion of the dedication, was presented with an engrossed copy of the following Regents' resolution, adopted in his absence:

WHEREAS, James F. Bell, graduate of the University of Minnesota in the class of 1901, and respected fellow-member of its Board of Regents, has decade by decade devoted himself to furthering in untold ways the University's on-going program of service to his native state and to the world of scholarship and science; and

WHEREAS, Regent Bell, with unremitting fervor, accompanied by the joys that only the discriminating collector can experience, has over the years of a busy and productive life assembled an invaluable and distinguished library of Americana, focusing upon early explorations and the relentless push of intrepid pioneers for trade routes that opened new worlds to mankind; and

WHEREAS, Regent Bell, mindful that such a collection achieves its ultimate value only through the scholarly uses to which it may be put, has presented to the University a room unique in its conception and in its beauty to house this collection which is on trusteeship-deposit at the University; and

WHEREAS, This treasure room in the University Library constitutes a rare book facility adding immeasurably to the scholarly productivity of the University and its incentive to institutional distinction; therefore

*Be It Resolved*, That the Regents of the University of Minnesota, by this formal action, express to their friend and associate, James F. Bell, their profound sense of gratitude for his long and devoted interest in the University, newly manifest in the generous gift of the new rare book room in the Library, in which his remarkable collection now finds an appropriate home; and

*Be It Further Resolved*, That the Regents designate this facility as the "James Ford Bell Room" in honor of their colleague whose distinctive qualities of mind and personality it so perfectly and aptly symbolizes.

**Short Course Building**—The Board of Regents on February 13, 1953, voted to earmark any proceeds from Earle Brown's gift of Brooklyn Farm for the construction and equipment of a Short Course building to be located on the St. Paul Campus and to designate such building the Earle Brown Hall. In this

connection the Board also acted to authorize the preparation of preliminary plans and specifications of the proposed Short Course building and to authorize a study of the most desirable future uses of the Farm, including its development as a residential sub-division which would include the use of some parts of the tract for recreational and other public uses in keeping with the desires and needs of the community, by the School of Architecture and other interested and appropriate departments, with the general understanding that Mr. Brown be consulted and advised of developments.

**Tenure Regulations Revised**—As was noted earlier in this report, the Board of Regents, on July 11, 1952, approved a revised tenure code for faculty members titled "Regulations Concerning Faculty Tenure." The revised code was adopted with the following proviso:

Voted, that in adopting *Regulations Concerning Faculty Tenure*, it is understood that the Board of Regents, if faced with the necessity of drastic reduction in the University budget, unquestionably has, and does reserve, the power to suspend or abolish positions, or even entire departments, divisions, or other administrative units.

It is further understood that if confronted by such adverse contingency, the President will, before presenting his recommendations to the Board of Regents, consult with, and secure the advice of, the Administrative Committee and the Consultative Committee of the University Senate on the educational policy involved and the financial necessity, and that the recommendations of both these committees will be presented by the President to the Regents, along with any independent recommendations of his own.

It is further understood that in effecting retrenchment because of financial necessity, the Regents will make reductions in faculty positions only to the extent that, in their judgment, is necessary after exploring various alternative methods of achieving savings; and that the Regents fully intend that the tenure system as a whole and the tenure rights of each individual faculty member be protected in every feasible manner during periods of such retrenchment.

**New Salary Leave Program Approved**—A new "leave" program, providing leaves for one quarter at full salary for selected members of the faculty who have achieved tenure status was approved by the Board of Regents on June 12, 1954. The new plan, which becomes operative with the winter quarter of 1955, is in accordance with the following recommendations of an all-University committee which studied the problem:

1. We recommend the adoption of a system of faculty leaves, for staff members who have achieved tenure, for single-quarter special appointments on full salary, established as a faculty privilege to be obtained on a competitive basis rather than as a periodic right.

2. The purposes of such leaves shall be to forward special studies, researches, scholarly writing and investigations that will enrich and strengthen individual knowledge and understanding in the domain of scholarship and University teaching.

3. The total possible number of such leaves for any given year shall be determined on the basis of five per cent of the full-time faculty with tenure. The present number of such full-time faculty members is 795. For the first year of operation of the plan the number of special single-quarter appointments shall be limited to 40.

4. Allocating the 40 appointments by colleges on the principle of five per cent of the full-time members with tenure, selections on merit shall be made by means of the following machinery: (a) committee screening at the college level, with resultant recommendations to (b) an all-University *ad hoc* committee appointed by the President, which in turn (c) will present recommendations for official University approval.

5. With 40 potential appointments authorized for one (fiscal) year, 36 of them, if approved on the basis of merit, shall be provided through reassignments within the departments or colleges. The subcommittee in this connection suggests the advisability of placing as many of the appointments as possible in the spring quarter for two reasons: (1) the normally reduced load of that quarter will facilitate reassignment of duties, and (2) the junction of that quarter with the summer vacation may, in many instances, be a marked advantage to the individual receiving the appointment. The subcommittee has taken into account the probability that in a few departments of small size, reallocation of duties may not be feasible, and it therefore recommends that some special financial provision by the University be made available, where needed in departments of limited staff and course offerings. The subcommittee recommends that appointments of this kind, made on merit, should not exceed four in any one year and that, further, a ceiling of \$10,000 be placed upon the financial subsidies to cover the needs of the departments concerned.

6. No faculty member shall be eligible to apply for a single-quarter leave on full pay until he has served on the faculty a sufficiently long time to have established a basis for adequate University evaluation of his potential contributions. We recommend that this period of service be fixed at not less than three academic years, with the understanding that some part of this period may, in given instances, have been prior to the establishment of tenure.

7. The traditional sabbatical leave system shall be retained alongside the new plan for faculty leaves for short-time special appointments. The single-quarter leave shall be counted in the total of six academic years established as a prior condition for a regular sabbatical leave. On the other hand, the single-quarter leave shall not be followed or preceded by a regular sabbatical leave. Such leave shall in no instance be valid for a

faculty member who, for the quarter in question, proposes to take other employment or to accept salary or compensation for services. Departmental reassignments of regular duties could not be justified, we believe, as a means of enabling a faculty member to accept other employment while at the same time receiving full salary from the University. The subcommittee believes, however, that it would be entirely proper for the faculty member on single-quarter leave to apply for a travel grant or for research or fellowship aid in his project, if such assistance is needed and is believed to be anywhere available.

The present plan for single-quarter leaves is not intended to replace the system of Summer Faculty Research Appointments. The subcommittee recommends, however, that such summer appointments should not be given in the same year to faculty members who receive single-quarter leaves. Unless such a proviso were adopted, there would inevitably be inequity in faculty treatment, since there are only approximately ten summer appointments available, and the case for using a summer appointment as a supplement to the single-quarter leave probably would be equally strong for all 40 of the faculty who are on single-quarter leaves.

8. A faculty member receiving a single-quarter leave shall commit himself to return to University service for at least one full academic year or its equivalent.

9. No single-quarter faculty leave on full salary shall be granted for the purpose of carrying forward graduate work for a higher degree or for the writing of textbooks. Each applicant for a special appointment shall prepare a careful description of the nature and purposes of the project he or she has in mind for the quarter. After the completion of the leave (and not later than September 15, if the leave applies to a spring quarter), a report shall be submitted on results. The subcommittee recommends that such reports be channeled through the dean of the college to the committee that screens selections at the college level and thereafter to the all-University committee, and that finally these reports, with a covering summary prepared by the all-University committee, shall be transmitted to the president.

**Action on Educational Television**—The Board of Regents unanimously agreed to accept responsibility for the operation of a state-wide educational television network providing the Legislature appropriates the necessary funds. This action, in the form of a resolution adopted January 9, 1953, was as follows:

WHEREAS, The Federal Communications Commission has set aside until June 2, 1953, television channel 2 at Minneapolis-St. Paul and channel 8 at Duluth-Superior exclusively for educational non-commercial broadcasting, and has indicated that additional supplementary channels within the state may be made available for such use at a later time; and

WHEREAS, The Federal Communications Commission has provided means by which such channels may be applied for by a *bona fide* educational institution, acting under pertinent regulations, as the representative of all educational interests in the region to be served; and

WHEREAS, A state-wide citizens committee for educational television, formed for the purpose of guiding the course of Minnesota citizens in regard to television, has stated its firm belief that any plans for educational television in Minnesota should include service to all the citizens of the state, and further has recommended the University of Minnesota as the state agency best equipped and best qualified to provide such service; and

WHEREAS, This committee has expressed a desire for the University of Minnesota to apply for licenses to operate on channel 2 and channel 8, in the Twin Cities and Duluth-Superior respectively;

Now Therefore, We the Regents of the University of Minnesota, recognizing the obligation of the University to render educational service to all the citizens of Minnesota and in so doing to act as trustee of the educational interests of such citizens, and willing in the public interest to assume responsibility, as required by law, in connection with the operation of television stations for non-commercial educational broadcasting,

Do Presently Resolve, That the appropriate officers of the University of Minnesota are hereby authorized:

1. To file seasonably with the Federal Communications Commission applications for licenses for television channels 2 and 8;
2. To petition the Federal Communications Commission to allocate to Minnesota additional channels reserved for non-commercial educational television, and to make application for such channels;
3. To cooperate with the state-wide citizens committee for educational television in seeking funds to be expended for the erection and maintenance of educational television stations in Minnesota, designed to bring television programs of an educational nature to as many as possible of the citizens of the state;
4. To accept responsibility for the operation of such stations as may be licensed to the University, provided that for the guidance of the University in such operation there shall be formed under proper legal auspices a state-wide representative commission, which shall be instructed to hold in full consideration the educational interests of all the people of the state, and which shall be empowered by legislative action to determine state-wide policies as to programming.

**Multiple Sclerosis Clinic Opened**—A clinic to diagnose and do experimental work on the dread illness, multiple sclerosis, began admitting patients on July 1, 1953. This new facility was made possible by a \$20,000 grant for two years from the Legislature.

Multiple sclerosis is a chronic, recurrent illness which suddenly strikes the nervous system of the 18 to 35 age group. It gets its name because of the

thickening of the areas of the brain and spinal tissues which are attacked by the disease. The cause of the disease is unknown and there is no specific treatment for it.

One of the difficulties in dealing with multiple sclerosis is that two-thirds of the doctors graduated today cannot recognize a case of the disease because the medical schools in which they studied have no organized courses in neurology. Furthermore, there were only four or five multiple sclerosis clinics in the United States at the time the University clinic was opened.

**Memorial Arch Dedicated**—The bricked-in entrance arch, as a memorial on the site of the first state school of agriculture, was dedicated on March 14, 1954 at the reunion of 12 School of Agriculture classes on the St. Paul Campus. The building, which contained this entrance arch, was constructed in 1888 when the school had three students. By the date of the dedication, this school had registered a total of 24,519 students, of whom 5,190 had graduated.

**Death of Former Regent**—Archie Dell Wilson, former member of the Board of Regents, former University staff member, and first director of the University's Agricultural Extension Service, died on October 21, 1952. The Board of Regents, in recognition of his service to the University, adopted the following resolution at a meeting on November 1, 1952:

WHEREAS, Archie Dell Wilson had an association with the University of Minnesota that began as a student more than a half century ago; and

WHEREAS, because of his great and impressive abilities he progressed through the ranks of University staff membership from farm teamster and farm foreman to professor and director of agricultural extension; and

WHEREAS, he served this state ably and faithfully over the years in manifold ways, and by his own example enhanced immeasurably the advancement of agricultural knowledge and practice; and

WHEREAS, he sat as a member of the Board of Regents of the University from 1922 to 1929 and contributed devotedly from his wealth of experience and sound judgment to its deliberations;

Therefore Be It Resolved, That the Regents of the University of Minnesota do hereby express their profound appreciation for all that the life of Archie Dell Wilson has meant to the University and to the people of this state; and do record the sadness and sense of loss that are occasioned by his death; as evidence of which they spread this resolution upon the permanent records of the University and instruct their secretary to send a copy to Mrs. Wilson as manifestation of genuine and deep-felt sympathy.

**Schmitz Receives "Builder of the Name" Award**—"Builder of the Name," the University's highest award, was presented to Henry Schmitz at the 50th Anniversary Dinner of the School of Forestry, October 23, 1953. Dr. Schmitz, president of the University of Washington, served the University of Minnesota as chief of the School of Forestry, 1925-47, and dean of the College of Agriculture, Forestry, and Home Economics, 1947-52.

The citation, read by President J. L. Morrill in conferring the award, is as follows:

The Regents of the University of Minnesota, as a token of high esteem and in recognition of services to the University by Henry Schmitz, president of the University of Washington, long-time head of the School of Forestry of the University of Minnesota, former dean of its College of Agriculture, Forestry, and Home Economics, untiring administrator and beloved educator, known to both faculty and students as a true friend, valuable contributor to the physical and spiritual growth of the University, deem him to be and designate him as a Builder of the Name, conferred on October 23, 1953.

**Honorary Degrees**—Five honorary degrees were conferred at the commencement exercises, June 12, 1954. The honorary degree, master of arts, was conferred on John Ernest Dahlquist and Stanley Raymond Michelsen; the honorary degree, doctor of laws, was conferred on Solon J. Buck; and the honorary degree, doctor of science, was conferred on Robert Newton and Elvin C. Stakman.

The official citations for the honorary degrees were as follows:

**JOHN ERNEST DAHLQUIST**  
Lieutenant General, USA

NATIVE son and former student of the University of Minnesota; outstanding military strategist; since 1917 an officer in the United States Army; commander of the 36th Infantry Division in France in 1944; captor of Field Marshal Von Runstedt and Reich Marshal Goering; liberator of former Premier Reynaud of France; holder of the Distinguished Service Cross, the Distinguished Service Medal, the Silver Star, the Legion of Merit with Oak Leaf Cluster, the Bronze

Star with two Clusters; recipient of the French Legion of Honor and the Croix de Guerre from the grateful people of France; Chief of the Army Field Forces at Fort Monroe, Virginia—

BECAUSE of your military service to the country and your contribution to the defense of the free world, the Regents of the University of Minnesota, upon recommendation of the faculties, confer upon you, John Ernest Dahlgquist, the degree of Master of Arts, *honoris causa*, with all the rights and privileges pertaining to that degree.

#### STANLEY RAYMOND MICKELSEN

Major General, USA

NATIVE of the state of Minnesota and former student at its University; in 1917 commissioned in the United States Army; assigned to far-flung outposts in Panama, the Philippines, and Iceland; military authority in artillery; in 1944 chief of the Displaced Persons branch; assistant chief of staff, Supreme Headquarters Allied Expeditionary Forces; able organizer of the Guided Missiles Group; holder of the Distinguished Service Medal and the Legion of Merit; Commanding General of the Antiaircraft and Guided Missiles Center, Fort Bliss, Texas; far-seeing military scientist and rigorous trainer of men—

BECAUSE you have so successfully combined military acumen with rare administrative ability; and because you have ably promoted the cooperation of military and scientific experts, thereby contributing effectively to the national welfare and security, the Regents of the University of Minnesota, upon recommendation of the faculties, confer upon you, Major General Stanley Raymond Mickelsen, the degree of Master of Arts, *honoris causa*, with all the rights and privileges pertaining to that degree.

#### OLON J. BUCK

NATIVE of our neighboring state, Wisconsin; distinguished graduate of the University of Wisconsin and Harvard University; for seventeen years member of the faculty of the University of Minnesota, interpreter of western history, and guide to advanced students; for an equal period modern rebuilder of our sister institution, the Minnesota Historical Society, and inspirer of public interest in our state and local history; author and editor of notable books depicting the role of Minnesota and the West in national history; organizer of historical work in Pennsylvania and other states; one-time Archivist of the United States, Chief of Manuscripts and Assistant Librarian of the Library of Congress; profound scholar, far-seeing historical administrator, tracer and interpreter of records of the past—

BECAUSE you have created a new public awareness of Minnesota's heritage; because through history and its organization you have deepened understanding of this region and the nation, the Regents of the University of Minnesota, upon recommendation of the faculties, confer upon you, Solon J. Buck, the degree of Doctor of Laws, *honoris causa*, with all the rights and privileges pertaining to that degree.

#### ROBERT NEWTON

BORN in the Dominion of Canada; bearer of the British Military Cross for bravery in World War I; distinguished graduate of the University of Alberta and the University of Minnesota; eminent educator and scientist; skilled administrator of the National Research Council of the Dominion of Canada; president emeritus of the University of Alberta; pioneer in establishing regional laboratories which have contributed greatly to the knowledge of plant biochemistry and cereal grains; tireless fighter in the war against plant disease—

BECAUSE your vision and leadership have been instrumental in solving many of the problems of prairie agriculture; because your diligent search for truth and your selfless dedication to the public welfare have made it possible to feed an ever-increasing number of the world's hungry, the Regents of the University of Minnesota, upon recommendation of the faculties, confer upon you, Robert Newton, the degree of Doctor of Science, *honoris causa*, with all the rights and privileges pertaining to that degree.

#### ELVIN C. STAKMAN

INSPIRING educator whose career as a student and teacher at this University has spanned half a century; pioneer in fundamental research in microbiology; acknowledged as the world's foremost authority on stem rust; leader in the study of international aspects of plant pathology; devoted contributor to the development and training of students from all parts of the world; former president of the American Association for the Advancement of Science; chairman of the United States Atomic Energy Commission's Advisory Committee on Biology and Medicine; builder of international understanding as consultant in agriculture for the Rockefeller Foundation; hailed as one of the outstanding scientists of this century—

BECAUSE your invaluable contributions in the field of plant pathology have promoted biological research and advanced agricultural practice in the state, the nation, and the world, the Regents of the University of Minnesota, upon recommendation of the faculties, confer upon you, Elvin C. Stakman, the degree of Doctor of Science, *honoris causa*, with all the rights and privileges pertaining to that degree.

**Outstanding Achievement Medals Conferred**—Outstanding Achievement Medals, authorized by the Board of Regents on December 11, 1947, had been

conferred on 175 individuals through June 30, 1954. This total included 2 for 1946-48, 3 for 1948-50, 129 for 1950-52, and 41 for 1952-54.

The 41 awarded during 1952-54 were presented at various times—at dedications, dinners, luncheons, breakfasts, meetings, banquets, anniversaries, and the like, both on and off the campus. The names of the distinguished graduates who received these awards during the biennium and the colleges in which they pursued their studies at the University follow:

Raymond B. Allen, Med.  
Edna P. Amidon, Ed.  
Frank Maloy Anderson, S.L.A.  
Minton M. Anderson, I.T.  
Dorothy A. Bennett, S.L.A.  
Lloyd V. Berkner, I.T.  
Morris J. Blish, Ag.  
H. Donald Campbell, Ed.  
Richard Paul Carlton, I.T.  
A. Dale Chapman, Ag.  
Luella Bussey Cook, Ed.  
R. Conrad Cooper, I.T.  
William T. Cox, Ag.  
Fred A. Davies, I.T.  
Samuel B. Detweiler, Ag.  
George Arthur Earl, Med.  
Marion L. Faegre, S.L.A.  
John K. Fesler, Law  
Vincent Joseph Flynn, Ed.  
Verne C. Fryklund, Ed.  
Paul Maurice Glasoe, I.T.

Samuel A. Graham, Ag.  
Frank F. Grout, S.L.A.  
Jacob George Harrar, Ag.  
Lloyd A. Hatch, I.T.  
Howard Haycraft, S.L.A.  
Rewey Belle Inglis, Ed.  
Joseph Moses Juran, I.T.  
Charles Frederick Keyes, Ed.  
Lawrence Eldred Kirk, Ag.  
Charles J. Lewis, Jr., Ag.  
Ralph Melvin Lindgren, Ag.  
Frank F. Marshall, Ag.  
John Francis McGovern, Ed.  
William David Reeve, Ed.  
Walter L. Rice, Ed.  
Herman Alonzo Rodenhiser, Ag.  
Conrad G. Selvig, Ag.  
Betty Sullivan, Ag.  
James Greenleaf Umstadd, Ed.  
Cassius J. Van Slyke, Med.

**Professor Edward W. Davis Honored by Mining Company**—Professor Edward W. Davis, for many years head of the Mines Experiment Station, was honored by the Reserve Mining Company on July 7, 1953 for his important contributions in the field of taconite beneficiation. The company, at that time, formally named its new plant at East Beaver Bay, Minnesota, the "E. W. Davis Works."

Their appreciation for the efforts of Professor Davis was expressed by the adoption, on that date, of the following resolution:

WHEREAS, The University of Minnesota many years ago recognized that the known supply of iron ore, of the direct shipping type, would eventually be exhausted. Looking far into the future, the staff of the University realized that the gradual depletion of direct shipping ores would seriously endanger Minnesota's chief industry. The State of Minnesota would lose a large part of its tax revenue. And the people of Minnesota who depend upon the mining, processing, or shipping of iron ore, would suffer the blight of unemployment. To prevent such an economic tragedy, the University staff began to study how the tremendous deposits of taconite rock on the Mesabi could be converted into useful ore.

WHEREAS, Professor E. W. Davis has long been the director of the Mines Experiment Station of the University of Minnesota. He was one of the first to have the vision to foresee the importance which the development of taconite had to the economy of the state and the welfare of the nation. For almost 40 years, he has worked unceasingly to develop an efficient commercial process which could be used to beneficiate taconite. He led the little group of taconite pioneers who traveled a long, hard, uphill road. For many years, they experienced more failures than successes. But they never lost sight of the objectives they were striving for. Their task was made more difficult because they had to do more than pioneer a new process—they had to convince many who were skeptical that their objectives were basically sound. Perhaps the most appropriate tribute to the leadership of Professor Davis, in the taconite development, came from Dr. J. L. Morrill, president of the University of Minnesota. Dr. Morrill said, concerning Professor Davis: "He has had the energy to carry forward, sometimes in the face of crushing discouragement, the patient and persistent endeavor that all fundamental research involves. He has had the perseverance of a crusader."

WHEREAS, Professor Davis has developed numerous improvements related to the beneficiation of taconite ores. He has made his technical knowledge and skills available to all interested companies. Today, he is recognized as the foremost leader of those who have developed the taconite industry.

Now Therefore, Be It Resolved, That his many contributions to the taconite industry, and his outstanding leadership, be recognized by Reserve Mining Company. In grateful appreciation, our facilities for beneficiating taconite at East Beaver Bay, Minnesota, on and after this date shall be named the "E. W. Davis Works."

And Be It Further Resolved, That a separate page of the record book of our company be set aside for appropriately recording this resolution. We also direct that suitable copies of this resolution be presented to Professor E. W. Davis, and to the president of the University of Minnesota.

**Recognition for Kerlan Gifts**—In June of 1946, an agreement was signed with Dr. Irvin Kerlan of Washington, D. C., a graduate of the University, whereby he transferred to the University, to be known as the Kerlan Collec-

tion, many books in the field of children's literature, and the work of artists who illustrate such books.

From time to time Dr. Kerlan has added to the Collection, and stimulated authors and artists to make gifts of their work to it. The Kerlan Collection has now developed into a uniquely useful and valued body of material, housed in the University Library.

In recognition of his services to the University, the Board of Regents on October 4, 1952, adopted the following resolution and transmitted an engrossed copy to Dr. Kerlan:

WHEREAS, Dr. Irvin Kerlan, graduate of the University of Minnesota, has through his continuing generosity and unflagging interest built up and enriched the Kerlan Collection in the University Library; and

WHEREAS, Dr. Kerlan has, through his gifts and those from others whom he has stimulated, added so greatly to the resources of the University and thereby to the people of the state whom it serves;

Therefore, *Be It Resolved*, That the Regents of the University do hereby welcome this opportunity to express to Dr. Kerlan their pride and gratification for his significant contributions.

**Recognition for Airport Gift**—The Board of Regents on January 9, 1953, gave recognition and expressed appreciation to Lawrence McIvor Steiner for his gift of land for airport purposes. The text of the formal resolution reads as follows:

WHEREAS, On the 29th day of April, 1941, Lawrence McIvor Steiner, as President of American Aviation, Inc., purchased and conveyed to the Regents of the University of Minnesota 260 acres of land in northern Ramsey County, Minnesota, as the site of the University of Minnesota Airport, subject to a 30-year reciprocal agreement for the operation of the Airport;

WHEREAS, This site was developed and used jointly as a licensed public airport at which the flight instruction, research and other educational aviation activities of the University were carried on up to December 1, 1952;

WHEREAS, On or about the 5th day of June, 1951, the Minneapolis-St. Paul Metropolitan Airports Commission agreed to acquire, improve and construct an airport on a 1,200 acre site in Blaine Township on the southern line of Anoka County one and one-half miles west of the University Airport, which new airport, known as the Anoka County Site Airport, has now been constructed and opened for flight activities as of December 1, 1952, at which date the University Airport license was surrendered for cancellation;

WHEREAS, The University Administration Building and flight activities have been moved from the old University Airport to the new Anoka Airport on a negotiated 30-year lease, and the lease-hold interest of American Aviation, Inc., and their two buildings on the University Airport have been acquired by the Minneapolis-St. Paul Metropolitan Airports Commission by condemnation proceedings, and the two buildings now belong to the Commission; and

WHEREAS, The 260 acres of land comprising the original University Airport site, which remains the property of the University, have recently been re-zoned from farm-residence to business use, and the future benefits to be derived from these lands are to be used for the continued development of aviation activities and research at the University of Minnesota, which activities will now be perpetuated on the new Anoka County site;

Now, *Therefore, Be It Resolved*, That the Board of Regents of the University of Minnesota express the appreciation of the University to Lawrence McIvor Steiner for the original gift of the site of the University of Minnesota Airport, and that the Secretary be instructed to forward to Mr. Steiner a copy of this resolution.

**Wins Film Award**—The University of Minnesota won third place and a bronze medal from the Screen Producers Guild, Inc., in the 1953 annual Intercollegiate Film Contest, members of the Board of Regents were informed on November 11, 1953. The winning film, "Art and Seeing," was produced by students in photographic classes and was designed for use in elementary art courses as a device for enhancing the ability of students to see the world around them in new and fascinating ways.

**Constitution for the St. Paul Campus Union**—The Board of Regents, at a meeting on June 13, 1953, approved the following Constitution for the St. Paul Campus Union of the University of Minnesota:

#### *Preamble*

We, the students on the St. Paul Campus of the University of Minnesota, in order to form a permanent organization to use effectively the facilities offered by the Union Building located on the St. Paul Campus, and to provide for a comprehensive social, recreational and cultural program, do ordain and establish this constitution for such Union.

#### ARTICLE I

Section 1. The Saint Paul Campus Union, hereinafter designated as the Union, is an association of those undergraduate students registered for study on the Saint Paul Campus and those graduate students who are majoring in subject-matter courses on the Saint Paul Campus and who pay the Union fee.

## THE PRESIDENT'S REPORT

Section 2. The Union shall have its headquarters and center its activities in the Union Building located on the Saint Paul Campus of the University of Minnesota.

Section 3. The Union shall operate under the direction of the Director of Student Unions and as a department of the University of Minnesota. This department shall be responsible to the Vice President, Academic Administration of the University.

Section 4. The governing body for this Union shall be known as the St. Paul Campus Union Board of Governors.

## ARTICLE II

Section 1. The Board shall have the power:

(A) To develop, through the facilities of the Union, a coordinated social program which will furnish to a maximum number of students social activities which will contribute educational value as well as leisure time entertainment.

(B) To employ such professional and non-professional people who may be necessary and proper for the formulation and execution of its program.

(C) To establish and enforce rules and regulations concerning conduct in, and use of, all student facilities in the Union subject only to general University regulations.

(D) To prepare and adopt an annual budget.

## ARTICLE III

Section 1. Union fees paid by members of this Union Association together with the income from Union enterprises under the direction of the Union Board shall be used as follows:

(A) In such amounts as may be necessary for current expenses, program and equipment of the Union.

(B) For extraordinary operating and maintenance needs.

(C) For expansion and equipping of additional building space when such space is needed or becomes available.

(D) For future Union construction on the St. Paul Campus.

## ARTICLE IV

Section 1. The student membership of the Union Board shall be as follows:

(A) Two students, each with vote, shall be elected from each academic unit (College of Agriculture, School of Forestry, School of Home Economics, School of Veterinary Medicine, School of Agriculture, St. Paul, and other comparable academic units that may be activated in the future) on the St. Paul Campus.

1. Each student shall serve for a term of two years, with the two terms for each academic unit starting in alternative years.

2. To be eligible for election, a student must have completed the freshman year and must be able to complete the two year term before graduation in addition to fulfilling the other requirements of the University of Minnesota pertaining to participation in student activities.

(B) Additional students, each with vote, shall be elected from any academic unit whenever enrollment in such unit exceeds 400 as an average for the two quarters immediately preceding the quarter in which elections are held.

1. One additional student shall be elected for each 400 additional registered students or fraction thereof.

2. These students shall serve for terms of one year each.

3. One of these students from each academic unit represented must, when elected, be a third quarter freshman or first or second quarter sophomore; the others must be third quarter freshmen or beyond when elected.

(C) One graduate student with vote, to be elected by and from the graduate students majoring in subject matter in departments and schools on the St. Paul Campus to serve for a term of one year.

(D) The president of the Council representing students in college programs on the St. Paul Campus, without vote.

Section 2. All elections shall be held at the time of the regular student elections in the spring under existing rules and regulations governing elections and eligibility.

Section 3. The non-student membership of the Board shall include:

(A) The Director of Resident Instruction and Assistant Dean for the College of Agriculture, Forestry, and Home Economics, with vote.

(B) Three faculty members, each with vote, to be appointed by the Dean of the Institute of Agriculture (after consultation with the Director of Resident Instruction and Assistant Dean of the College of Agriculture, Forestry, and Home Economics, the Assistant Dean for the School of Veterinary Medicine and the Superintendent of the School of Agriculture, for terms of three years each, with one term to begin each year).

(C) The Director of Student Unions, the Manager of the Union on the St. Paul Campus, a representative from the Minnesota Alumni Association, and a representative from the Office of the Dean of Students—all without vote, except Alumni Association representative.

## ARTICLE V

Section 1. All newly-elected members of the Board shall take office at the end of the quarter in which they are elected.

Section 2. Within three weeks following elections the outgoing president shall call a meeting of the new Board for the purpose of electing officers for the coming year. All voting members of the new Board and only such members shall vote at this meeting.

Section 3. The members elected or appointed at the spring elections shall be invited to attend (without vote) the meetings of the Board for the remainder of the quarter in which they are elected or appointed.

Section 4.

(A) The officers of the Board shall be a President, Vice President, Secretary and such others as the Board may designate.

(B) The officers shall be chosen by the Board from its student membership.

Section 5. The Board shall determine the rules of its proceedings.

Section 6. Vacancies in the student membership of the Board shall be filled by the Board to serve until the next regular election.

#### ARTICLE VI

Section 1. Amendments to the Constitution may be made in the following manner: Either

(A) By proposal from the Board, or

(B) By the Board of Regents of the University

Section 2. Amendments shall be proposed by the Board whenever: Either

(A) The majority of the entire voting membership of the Board deems it necessary, or

(B) A petition is presented to the Board signed by a number of qualified voters equal to at least ten per cent of the number of ballots cast at the preceding spring election.

Section 3. Amendments proposed by the Board shall become effective immediately after ratification by a majority of all voters voting on the amendment at a regular or special election and approval by the Board of Regents of the University of Minnesota.

#### ARTICLE VII

This Constitution shall become effective immediately after ratification by a majority of all voters voting on this Constitution at a regular or special election and approval by the Board of Regents of the University of Minnesota. This Constitution shall supersede any previous document of similar nature.

**Use of Duluth Branch Facilities**—An official statement covering the use of facilities at the Duluth Branch was adopted by the Board of Regents on January 8, 1954. The text of the statement follows:

On April 17, 1937 the Regents adopted a "Statement Covering the Use of University Buildings." This set forth the general philosophy and assumptions underlying the nature of University buildings and the purposes for which they are constructed, and established the conditions under which their use might be shared with non-University groups. These principles were enunciated:

1. The University of Minnesota will not under any circumstances permit the unrestricted use by non-university groups of any of its facilities, provided for the furtherance of its educational functions.
2. The University, by the very nature of the functions for which it exists as a publicly supported institution of higher education, cannot enter into joint sponsorship of any project or program that is to result in profits or private gain for the cooperating group or groups.
3. The University, established for the benefit of all the people of the state without regard to political faith, race, or religion, cannot be a joint sponsor with any non-campus organization for any political, racial, or sectarian gathering.
4. Whenever non-university groups share in the use of university buildings, it must be upon invitation of the University and under joint sponsorship, with the further understanding that all of the conditions governing that sponsorship are to be set by the University.
5. The University, upon entering into joint sponsorship of any program or activity, assumes the full responsibility for all details, such as setting of hours, selling of tickets and pricing the same, supervision of buildings, etc. It reserves the right to approve all copy for advertising as well as all news releases.
6. The University will not enter into joint sponsorship of any program or activity in which the educational implications are not self-evident, and which does not directly supplement the educational purposes of the University."

The experience of the years has demonstrated the usefulness of this statement of policy. It has proven itself to be fair and administratively feasible: it has worked.

The Regents now reaffirm this general statement of policy.

At the same time, the Regents are conscious of the fact that their general policy was framed primarily to meet circumstances prevailing in the Twin Cities area and to govern use by non-University groups of the facilities on the Minneapolis and St. Paul campuses. They are now equally conscious of the fact that the completion of the Physical Education building on the campus at the Duluth Branch raises anew, and in a somewhat different context, the long-standing problem of building use by community groups.

The Regents are ever mindful that University use of its own facilities for the achievement of its own purposes is the primary consideration. All other allowable uses must be secondary to the University's paramount needs. Accepting this as a fundamental premise, it is recognized that there will be occasions when the Duluth Branch facilities can be effectively used for community purposes under conditions that are not inconsistent with the general premises governing use of University facilities.

To clarify these and to provide administrative guidance, the following guiding principles, applicable to the Duluth Branch only, are stated:

1. A non-University group may use the facilities only upon invitation of the University; in principle and in fact non-University users must be regarded as guests of the University and of the Duluth Branch in particular.

2. All use by non-University groups must conform to general policies of the University. For example, the University radio and publicity policies govern.
3. The Duluth facilities will be available for possible use only to non-profit, non-commercial organizations or groups.
4. To protect the University in its own needs for the use of facilities, no arrangements for use by non-University groups can be confirmed more than four weeks in advance of the desired date.
5. The facilities are not to be used by any group if ticket sales are involved and fund-raising is a purpose, unless all the net proceeds accrue to a recognized and established philanthropic or educational agency or group. The general budget planned by the group must also be approved by the University.
6. Presentations involving sale of tickets for other than approved charitable and educational purposes must be jointly sponsored by the University, through the Duluth Branch.
7. One principle of the general policy is here reiterated: "The University, established for the benefit of all the people of the state without regard to political faith, race, or religion, cannot be a joint sponsor with any non-campus organization for any political, racial, or sectarian gathering." Nor can the facilities be made available to non-University groups for sectarian or political purposes.
8. The University must reserve the right to appraise the suitability of any use of the facilities proposed by a non-campus group. Such appraisal may involve the use in relation to its effect upon the physical structure itself and also the relationship to the character and traditions of an educational institution, and to the nature and needs of the area it serves. Each application will be considered on its own merit.
9. It must be left to the University to determine the degree and extent of custodial, watchman, police or other related services that are to be provided in connection with any use of the facilities by non-campus groups, and employment and provision of these must be through the University.
10. All costs involved in the use of facilities by non-University groups, including proper indirect costs, must be met by the non-University groups.

**New Film Policy**—The Board of Regents, at a meeting on January 8, 1954, adopted a three-point policy for guidance in future film presentations. The action came after a subcommittee investigation of charges that the University Film Society was operating a public motion picture enterprise and running commercial operators out of business. The subcommittee found no unfair competition in the University's film presentations and recommended to the appropriate administrative officers the following policy:

1. That they continuously maintain, through proper procedures and staff cooperation, a close and careful scrutiny of the film selections to the end that in so far as possible any questions of their educational or cultural significance be minimized.
2. That they review the contractual practices and procedures employed in booking Film Society films.
3. That they, working with appropriate members of the staff, review the form and emphasis of Film Society announcements so that there can be no question that the films are chosen and presented with educational and cultural considerations dominant.

**Engineering Experiment Station Eliminated**—The Board of Regents, at a meeting on June 13, 1953, authorized the elimination of the Engineering Experiment Station as a formal separate unit of the Institute of Technology, effective July 1, 1953.

This change is consistent with a plan of research operation that has been developing in the Institute of Technology and which aims to place research in appropriate departments where prime interests of staff members fall.

**Milling Engineering Program Dropped**—The option in milling engineering which began in 1947, was discontinued, effective June 30, 1953 in an action taken by the Board of Regents on March 13, 1953. This curriculum, introduced in cooperation with the Millers' National Federation, was administered in the Department of Mechanical Engineering of the Institute of Technology, and its successful completion led to the award of the degree, bachelor of mechanical engineering.

**Pharmacy Curriculum Modified**—Authorization to modify the requirements for the completion of the curriculum in the College of Pharmacy was voted by the Board of Regents on June 13, 1953. Under the new plan, which was to become effective in the fall of 1954, the professional instruction in the college is on a four-year basis, with a prerequisite of one year pre-pharmaceutical education. The previous requirement included three years of professional instruction, preceded by one year of pre-pharmaceutical study.

**Authority to Grant Bachelor's Degree Transferred to Veterinary Medicine**—Transfer to the School of Veterinary Medicine of the authority to confer the B. S. degree on students who had completed prerequisites in pre-veterinary courses and also the first two years in the School of Veterinary Medicine was voted by the Board of Regents on April 10, 1953. Previously such degrees were conferred by the College of Agriculture, Forestry, and Home Economics.

**New Degree in Geophysics**—A new degree, bachelor of geophysics, to be conferred in the Institute of Technology, was approved by the Board of Regents on January 9, 1953. The successful completion of a five-year course is a condition of the award of the degree.

**Degree Changed**—The Board of Regents on March 13, 1953, voted to designate the undergraduate curriculum in mathematics in the Institute of Technology as "Applied Mathematics," and to change the degree designation from bachelor of engineering mathematics to bachelor of applied mathematics.

**New Certificate in Educational Administration**—A new certificate, "Specialist in Education," to be awarded by the Graduate School, was approved by the Board of Regents on January 8, 1954. This new program involves the successful completion of a second year of graduate study for which the present master of arts (or its equivalent) is a prerequisite. Approval for the award of this new certificate involved a program for school superintendents, with a major in educational administration. However, there is an expectation that approval will be sought in the future for the award of this certificate to persons preparing for other specialized positions in public education—principalships or supervisory posts, for example.

**New Policy on Works of Art**—A new policy relative to the acquisition of monumental works of art, including sculpture, paintings, fountains, and architectural ornaments of all descriptions, of major scale intended for permanent placement in a particular location, was adopted by the Board of Regents on March 13, 1953. Text of the new policy follows:

All fixed works of art on the campus shall relate directly to the architectural plan of the campus and shall be designed to harmonize completely with the architectural style of University buildings, with the understanding that only works that are specifically designed for specific areas on University grounds or locations will be accepted, and with the further understanding that this policy shall not preclude the acceptance of small items for teaching purposes or small commemorative or portrait plaques in buildings.

**Request for Use of Land for Ball Park**—The Board of Regents, May 14, 1954, disapproved the request of a committee representing Minneapolis and St. Paul that 40 acres of St. Paul Campus land be transferred for use as a major league baseball park.

The unanimous decision, which was reached with regret after careful study, was based upon three major factors:

1. The long-range development plan for the St. Paul Campus assumes the future need of the land for dormitory development, recreational space, housing for staff and married students, and even instructional and research buildings. The disposal of the land itself, however, was not as basic in the minds of the Board as was the location of the particular land in question in relation to existing buildings of the Institute of Agriculture and the plans for future development.

2. The presence of a ball park with all of the attendant traffic, crowds, noise, and inevitable fringe activities incidental to its operation, would be prejudicial to the instructional, research, service, and housing programs of the St. Paul Campus.

3. The presence of a ball park would seriously and adversely affect the character of the community life in the entire area. This would react adversely upon the recruitment and retention of a competent staff for the Institute of Agriculture, which staff largely finds housing in this area.

**Regents Greet Peru Education Minister**—Formal greetings to the Minister of Education of the Republic of Peru were adopted at a meeting of the Board

of Regents on January 9, 1953. The text of the action, which was engrossed and delivered personally by Regent Richard L. Griggs, follows:

TO THE MINISTER OF EDUCATION OF PERU  
GREETINGS

The happy circumstances of a visit to the neighbor-republic of Peru by the Honorable Richard L. Griggs, a Regent of the University of Minnesota, provides the welcome opportunity for him to present to the distinguished Minister of Education the cordial and friendly felicitations of the Regents of the University of Minnesota. Through their esteemed colleague the Regents likewise indicate their profound admiration for the signal accomplishments in education that are so evident in Peru and which are magnificently symbolized in the great traditions and notable history of the University of San Marcos, the oldest university in the Americas. These accomplishments are a heartening manifestation of the faith of the people of that country in the values that education can contribute to the well-being of citizens within any nation, and to the understanding and vision of peoples in all countries—the vision and understanding on which the enduring peace of the world must ultimately rest.

This exchange of greetings is formally approved by the Regents of the University of Minnesota, meeting in Minneapolis on the ninth day of January, 1953, and is duly recorded in the permanent minutes of the Board.

W. T. Middlebrook, Secretary

J. L. Morrill, President

**"D" Appointees Join Retirement Association**—Two actions were taken by the Board of Regents relating to "D" appointees. The original action of October 4, 1952, as amended on October 3, 1953, reads as follows:

Voted that all academic staff on the Regular Payroll on "D" appointments from October 1 to March 31 shall be members of the State Employees Retirement Association, effective October 1, 1952.

**Name of Waseca School and Station Changed**—The Board of Regents at a meeting on October 4, 1952, took the following action:

Voted to redesignate the Southeast Experiment Station as the "Southern Experiment Station, Waseca, Minnesota" and to designate the School of Agriculture as the "Southern School of Agriculture, Waseca, Minnesota."

**Lectures and Public Meetings on Campus Reported**—During the biennium, the Board of Regents was presented with summaries made by the vice president for academic administration of the lectures and public meetings held on the campus during 1951-52 and 1952-53. The reports revealed a total of 1,780 programs for 1951-52, including the Summer Session of 1952, and 1,204 for 1952-53, including the Summer Session of 1953. Speakers at these meetings were staff members, graduate and undergraduate students, and off-campus individuals.

Scanning the list of subjects treated reveals an impressive diversity, ranging from politics to religion, and amply justifying an observation of the late President L. D. Coffman to the effect that it was possible to obtain a well-rounded and significant liberal education on the campus of the University of Minnesota without ever entering a classroom—one had only to attend the lectures that the University offered.

**Staff Members in Who's Who**—The Board of Regents was informed on December 12, 1952 that a total of 346 living staff members of the University, including both those in active status and those with emeritus status as of January 1, 1952, appeared in the 1952-53 edition of *Who's Who in America*.

**Health Service Fees Increased for Foreign Students**—The Board of Regents on July 10, 1953 took the following action:

Voted to require all foreign students not insured in the Institute of International Education to pay an additional Health Service fee of \$8.00 per quarter, with benefits not to exceed \$750 for any one illness or accident with no limits or exclusions (except dentistry), with the understanding that students registered in the regular school year may receive benefits during the summer without payment of an additional fee if they are in residence in the University.

The above action became necessary because the University, like other institutions, faces the problem of meeting emergency health situations in the case of foreign students not adequately covered by special accident and sickness insurance plans. There had been instances, for example, of a student from a distant country developing tuberculosis, sustaining a severe injury, or needing emergency surgical care of a major type.

# UNIVERSITY PERSONNEL

## CHANGES IN PERSONNEL

### Board of Regents

The 1953 Legislature elected to a six-year term, expiring in 1959, Karl G. Neumeier, Stillwater, to succeed Sheldon V. Wood, Minneapolis. They also re-elected to six-year terms, expiring in 1959, Lester A. Malkerson, Minneapolis; Charles W. Mayo, Rochester; and J. Seneca Jones, St. Paul.

Subsequently, upon the death on February 7, 1953, of J. Seneca Jones, the Legislature elected to a six-year term, expiring in 1959, Mrs. Marjorie J. Howard, Excelsior, to replace him.

### Faculties

#### RETIREMENTS, 1952-53

Each year some members of the faculty reach the age of compulsory retirement, bringing to a close long periods of active association with the University.

The following staff members, with their periods of service indicated in parentheses, retired during the biennium:

Clyde H. Bailey, dean and professor emeritus, Institute of Agriculture (1911-53).  
William H. Alderman, professor emeritus of horticulture, Institute of Agriculture (1919-53).

Clara Brown Army, professor emeritus of home economics education, College of Education (1915-53).

Hervey H. Barber, professor emeritus of inorganic chemistry, Institute of Technology (1918-53).

F. Stuart Chapin, professor emeritus of sociology, College of Science, Literature, and the Arts (1922-53).

Ivan Doseff, professor emeritus of art, College of Science, Literature, and the Arts (1926-53).

Robert T. Jones, professor emeritus of architecture, Institute of Technology (1920-53).

Roy C. Jones, professor emeritus of architecture, Institute of Technology (1913-53).

Harold I. Lillie, professor emeritus of otolaryngology, Mayo Foundation (1917-53).

Frank C. Mann, professor emeritus of experimental surgery, Mayo Foundation (1916-52).

Stanley R. Maxeiner, clinical professor emeritus of surgery, College of Medical Sciences (1930-53).

George C. Priester, professor emeritus of mathematics and mechanics, Institute of Technology (1910-53).

Harry L. Smith, professor emeritus of medicine, Mayo Foundation (1929-52).

Elvin C. Stakman, professor emeritus of plant pathology and botany, Institute of Agriculture (1909-53).

Mark J. Thompson, professor-superintendent emeritus, Northeast Experiment Station, Institute of Agriculture (1913-53).

Ralph F. Crim, associate professor emeritus of agricultural extension, Institute of Agriculture (1922-53).

Howard R. Hartman, associate professor emeritus of medicine, Mayo Foundation (1920-52).

Harry J. Ostlund, associate professor emeritus, School of Business Administration (1919-53).

Marvin J. Van Wagenen, associate professor emeritus, College of Education (1917-53).

Jean H. Alexander, assistant professor emeritus, College of Education (1916-53).

- C. Alford Fjeldstad, clinical assistant professor emeritus of otolaryngology, College of Medical Sciences (1923-52).
- Rae T. LaVake, clinical assistant professor emeritus of obstetrics and gynecology, College of Medical Sciences (1912-51).
- Lillian L. Nye, clinical assistant professor emeritus of pediatrics, College of Medical Sciences (1907-15 and 1921-53).
- Jalmer H. Simons, clinical assistant professor emeritus of obstetrics and gynecology, College of Medical Sciences (1913-53).
- Ethel M. McIntyre, instructor emeritus, Library School (1951-53).
- Nina L. Youngs, instructor emeritus, School of Business Administration (1918-53).
- William A. Peters, district supervisor county agent work, Agricultural Extension Service, Institute of Agriculture (1918-53). (Died May 3, 1953).
- Margaret S. Harding, director, University Press (1927-53).

#### RETIREMENTS, 1953-54

- Thomas A. H. Teeter, dean and professor emeritus, Summer Session (1922-54).
- Francis B. Barton, professor emeritus of Romance Languages, College of Science, Literature, and the Arts (1915-54).
- Charles W. Boardman, professor emeritus, College of Education (1924-54).
- Edward A. Boyden, professor emeritus of anatomy, College of Medical Sciences (1931-54).
- Wilfred G. Brierley, professor emeritus of horticulture, Institute of Agriculture (1913-54).
- John C. Cothran, professor emeritus of chemistry, Duluth Branch (1933-54).
- Stuart W. Harrington, professor emeritus of surgery, Mayo Foundation (1921-54).
- Edgar J. Huenekens, clinical professor emeritus of medicine, College of Medical Sciences (1909-54).
- Byrl R. Kirklin, professor emeritus of radiology, Mayo Foundation (1927-54).
- Ralph T. Knight, clinical professor emeritus of surgery (anesthesia), College of Medical Sciences (1916-17 and 1920-54).
- Clayton O. Rost, professor emeritus of soils, Institute of Agriculture (1913-54).
- Homer J. Smith, professor emeritus of trade and industrial education, College of Education (1919-54).
- M. Cannon Sneed, professor emeritus of inorganic chemistry, Institute of Technology (1918-54).
- Wilson D. Wallis, professor emeritus of anthropology, College of Science, Literature, and the Arts (1923-54).
- Frederick A. Willius, professor emeritus of medicine, Mayo Foundation (1920-54).
- Harry B. Zimmerman, clinical professor emeritus of surgery, College of Medical Sciences (1913-54).
- Gertrude R. Hull, associate professor emeritus of music, College of Science, Literature, and the Arts (1916-54).
- Carl C. Chatterton, clinical associate professor emeritus of surgery, College of Medical Sciences (1913-54).
- Carl B. Drake, clinical associate professor emeritus of medicine, College of Medical Sciences (1924-54).
- Myron L. Armour, assistant professor emeritus-extension agronomist, Agricultural Extension Service, Institute of Agriculture (1924-53).
- Hilma L. Berglund, assistant professor emeritus of art, College of Science, Literature, and the Arts (1930-54).
- Lyman R. Critchfield, clinical assistant professor emeritus of pediatrics, College of Medical Sciences (1925-54).
- Arnold M. Foker, assistant professor emeritus, Northwest School and Station, Institute of Agriculture (1917-54).
- Inez M. Hobart, assistant professor emeritus, Agricultural Extension Service, Institute of Agriculture (1922-54).
- Alvin H. Larson, assistant professor emeritus of plant pathology and botany, Institute of Agriculture (1917-54).

- Justus Ohage, clinical assistant professor emeritus of surgery, College of Medical Sciences (1949-54).
- Walter R. Smith, assistant professor emeritus of physical education for men (1916-54).
- Marie O. Mollins, instructor, librarian and registrar emeritus, North Central School and Station, Institute of Agriculture (1918-54).

## TERMINATIONS, 1952-53

- Helen G. Canoyer, professor, School of Business Administration, effective June 15, 1953, to accept deanship of New York State College of Home Economics, Cornell University.
- William J. Simon, professor, School of Dentistry, effective January 1, 1953, to accept deanship at State University of Iowa.
- Henry N. Smith, professor of English, effective June 15, 1953, to accept a position at the University of California, Berkeley.
- Arthur R. Upgren, professor, School of Business Administration, effective June 15, 1953, to accept deanship of Amos Tuck School of Business Administration, Dartmouth College.
- Lee S. Whitson, professor of mechanical engineering, effective June 15, 1953, to accept position as director of manufacturing at Toro Manufacturing Company, Minneapolis.
- Dana Young, professor of mechanical engineering, effective June 15, 1953, to accept a professorship at Yale University.
- William C. Bell, associate professor of geology, effective June 15, 1953, to accept a position at the University of Texas.
- Lawrence F. Carpenter, associate professor, Hormel Institute, effective January 15, 1953, to become executive director, Distillers Feed Research Council, Inc., Cincinnati, Ohio.
- Carlton B. Chapman, associate professor of medicine, effective at close of 1952-53, to accept a professorship at Southwestern University Medical School, Dallas, Texas.
- Margaret Fillson, associate professor and director of nursing services, University of Minnesota Hospitals, effective January 30, 1953.
- George E. Moore, clinical associate professor of surgery, effective February 28, 1953, to become director of the Roswell Park Memorial Institute, Buffalo, New York.
- George O. Pierce, associate professor, School of Public Health, effective June 15, 1953, to accept position as chief of Pan American Sanitary Bureau, Environmental Branch, Washington, D. C.
- Dorothea F. Radusch, clinical associate professor, School of Dentistry, effective at close of 1952-53, to enter private practice.
- Ramona L. Todd, associate professor, School of Public Health, effective June 15, 1953, to accept position with Bureau of Maternal and Child Hygiene, California State Department of Health, San Francisco.
- Carolyn E. Bock, assistant professor, Duluth Branch, effective June 15, 1953, to seek a position within her own field of specialization (Latin).
- Craig W. Borden, assistant professor of medicine, effective June 30, 1953, to accept a position at Northwestern University Medical School.
- Donald W. Calhoun, assistant professor of general studies, effective June 15, 1953, to remain in Florida.
- Floyd W. Denny, Jr., assistant professor of pediatrics, effective June 30, 1953, to return to Vanderbilt University.
- Elwin R. Duncan, assistant professor-extension specialist in soils, Agricultural Extension Service, effective September 30, 1952, to accept a position at Iowa State College.
- Dorothy L. Erickson, assistant professor of physical education for women, effective June 15, 1953, to take up residence in California.
- Elizabeth G. Frame, assistant professor of physiological chemistry, effective at close of 1952-53, to accept position as clinical chemist at National Institutes of Health, Bethesda, Maryland.
- Harold Goldstein, assistant professor, Duluth Branch, effective June 15, 1953, to accept position at the University of Illinois Library School.

- Hewitt B. Hannan, clinical assistant professor of psychiatry and neurology, effective at close of 1952-53.
- Ann Hauser, assistant professor of public health nursing, effective June 15, 1953.
- Norman W. Johnson, assistant professor and director, Center for Continuation Study, effective October 15, 1952, to become director of Robert Allerton House, University of Illinois, at Monticello, Illinois.
- Virgil H. Johnson, assistant professor of agricultural engineering, effective May 6, 1953, to accept position as engineer with Caterpillar Tractor Company, Peoria, Illinois.
- Harry Z. Mellins, assistant professor of radiology and roentgenologist, Cancer Detection Center, effective December 31, 1952, to become radiologist, Sinai Hospital, Detroit, Michigan.
- Norman C. Mindrum, assistant professor--assistant state leader, 4-H Club, Agricultural Extension Service, effective February 12, 1953, to become director of the National 4-H Club Foundation.
- John E. Nafe, assistant professor of physics, effective June 15, 1953, to accept a position with Hudson Laboratories, Dobbs Ferry, New York.
- Mildred M. Page, assistant professor of art education, effective June 15, 1953.
- Amy D. Peterson, assistant professor, Institute of Child Welfare, effective June 15, 1953, to accept position at Stephens College, Columbia, Missouri.
- Joseph F. Rarick, assistant professor, Law School, effective June 15, 1953, to enter private practice.
- Spencer M. Smith, assistant professor, School of Business Administration, effective June 15, 1953, to serve as chief division economist, Food and Restaurant Division, Office of Price Stabilization, Washington, D. C.
- Charles E. Stanford, clinical assistant professor of ophthalmology and otolaryngology, effective June 30, 1953, to devote his entire time to private practice.
- John A. Stovel, assistant professor, School of Business Administration, effective June 15, 1953, due to ill health.
- George B. Strother, assistant professor, Duluth Branch, effective June 15, 1953, to accept position at Northland College, Ashland, Wisconsin.
- Gus Turbeville, assistant professor, Duluth Branch, effective March 15, 1953, to accept presidency of Northland College, Ashland, Wisconsin.

#### TERMINATIONS, 1953-54

- John E. King, provost and professor, Duluth Branch, effective September 30, 1953, to accept presidency of Kansas State Teachers College, Emporia.
- Wesley E. Fesler, head football coach and professor, Physical Education and Athletics, effective January 31, 1954, to go into radio work.
- Wallace E. Herrell, professor of medicine, Mayo Foundation, effective July 31, 1953.
- Richard A. Groat, associate professor of anatomy, Mayo Foundation, effective January 31, 1954, to accept employment as intern at City Memorial Hospital, Winston-Salem, North Carolina.
- C. Irene Hayner, associate professor, Library School, effective June 15, 1954, to retire from full-time teaching.
- Roy G. Holly, associate professor of obstetrics and gynecology, effective June 15, 1954, to accept chairmanship of department, University of Nebraska Medical School.
- Lawrence C. Kolb, associate professor of psychiatry, Mayo Foundation, effective June 30, 1954, to accept chairmanship of psychiatry department, Columbia University.
- Arnold J. Kremen, clinical associate professor of surgery, effective June 30, 1954, to accept professorship of surgery at Columbia University-Delawfield Hospital in connection with the Presbyterian Hospital, New York City.
- John M. MacKenzie, associate professor of mechanical engineering, effective at close of 1953-54, to enter industry.
- William R. Pritchard, associate professor, School of Veterinary Medicine, effective September 30, 1953, to accept position at Purdue University.
- Helen E. Sherrill, associate professor, School of Home Economics, effective at close of 1953-54, to work on her Ed.D. dissertation.

- Raymond M. Anderson, assistant professor of animal husbandry, effective September 26, 1953, to become director of research at Fort Worth, Texas.
- John C. Austin, clinical assistant professor, School of Dentistry, effective at close of 1953-54, to devote full time to private practice.
- Allan A. Bailey, assistant professor of neurology, Mayo Foundation, effective at close of 1953-54, to accept a position at University of Saskatchewan.
- Barkev Y. Bakamjian, assistant professor of physics, Duluth Branch, effective June 15, 1954, to seek employment in Boston, Massachusetts.
- Nathaniel J. Berkwitz, clinical assistant professor of medicine, effective June 30, 1954.
- Harriet E. Blodgett, assistant professor, Institute of Child Welfare, effective June 15, 1954, to accept a position with State Division of Public Welfare on the genetic research program.
- Donald M. Brieland, assistant professor, Institute of Child Welfare, effective at close of 1953-54, to accept position as director, Elizabeth McCormick Memorial Fund, Chicago.
- Spencer F. Brown, assistant professor of pediatrics, effective January 31, 1954.
- Thomas L. Collins, assistant professor of physics, effective June 15, 1954.
- Samuel O. Cornwell, assistant professor of anatomy, effective June 15, 1954, to re-enter medical school as a student.
- David V. Erdman, assistant professor of English, effective June 15, 1954, to accept position at University of Illinois, Navy Pier.
- Virginia R. Field, assistant professor, School of Public Health, effective June 15, 1954, to be nearer her home in Cleveland, Ohio.
- Kimon Friar, assistant professor, Humanities Division, Duluth Branch, effective June 15, 1954.
- D. Greth Gardiner, clinical assistant professor of general surgery, effective June 30, 1954.
- William M. Hales, clinical assistant professor of psychiatry and neurology, effective June 30, 1954.
- James F. Hammarsten, assistant professor of medicine, effective August 31, 1953, to accept a position at Veterans Hospital, Oklahoma City, Oklahoma.
- Ben I. Heller, clinical assistant professor of medicine, effective June 30, 1954, to accept a position at Northwestern University Medical School.
- William H. Hollinshead, clinical assistant professor of medicine, effective June 30, 1954, to devote full time to private practice.
- Haym Kruglak, assistant professor of general studies, effective June 15, 1954, to accept a position at Western Michigan College of Education.
- John H. Mabry, assistant professor of social studies, Duluth Branch, effective June 15, 1954, to accept fellowship with National Institute of Mental Health and a visiting professorship at Yale University.
- Elmer P. Magnell, assistant professor of humanities, Duluth Branch, effective at close of 1953-54, to accept position at Florida State University.
- Lawrence W. McIver, clinical assistant professor, School of Dentistry, effective June 15, 1954, to devote full time to private practice.
- Charles J. Meyers, assistant professor, Law School, effective June 15, 1954, to accept position at Columbia University.
- Charles E. Ramsey, assistant professor of sociology, effective at close of 1953-54, to accept a position at Cornell University.
- Stewart W. Shimonek, clinical assistant professor of orthopedic surgery, effective June 30, 1954.
- William C. Stevens, assistant professor and administrative assistant, Junior College, College of Science, Literature, and the Arts, effective June 30, 1954, to accept position as counseling psychologist at Veterans Administration Hospital, Perry Point, Maryland.
- Robert A. Ulstrom, assistant professor of pediatrics, effective September 30, 1953, to accept position at University of California.
- Charles Van Buskirk, clinical assistant professor of neurology, effective June 30, 1954, to go to the University of Maryland.
- Douglas M. Van Patter, assistant professor of physics, effective June 15, 1954.
- LeVerne W. Wegener, assistant professor, School of Agriculture, effective August 7, 1953, to be extension fieldman for American Breeders Service in LaCrosse, Wisconsin.

Richard B. Whittington, assistant professor of civil engineering, effective at close of 1953-54, to accept employment in England.  
 Thomas Ziskin, clinical assistant professor of medicine, effective June 30, 1954.

### APPOINTMENTS, 1952-53

#### Professors

- Olof Larsell as professor of neuroanatomy.  
 B.S. 1910, D.Sc. 1937, Linfield College (McMinnville, Oregon); M.A. 1914, Ph.D. 1918, Northwestern University.
- Victor Lorber as professor of physiology.\*  
 B.S. 1933, University of Chicago; M.D. 1937, University of Illinois; Ph.D. 1943, University of Minnesota.
- Will M. Myers as professor and chief of agronomy and plant genetics.  
 B.S. 1932, Kansas State College; M.S. 1934, Ph.D. 1936, University of Minnesota.
- Raymond B. Nixon as professor, School of Journalism.  
 B.Ph. 1925, Emory University; M.A. 1934, University of Wisconsin; Ph.D. 1942, University of Minnesota.

#### Associate Professors

- Adrianus J. Dekker as associate professor of electrical engineering.  
 B.A. 1939, M.A. 1942, Ph.D. 1945, University of Amsterdam (Holland).
- Ward S. Fowler as associate professor of physiology, Mayo Foundation  
 B.A. 1937, Swarthmore College; M.D. 1941, Harvard University.
- Richard A. Groat as associate professor of anatomy, Mayo Foundation.  
 B.A. 1937, University of Tennessee; M.S. 1939, Ph.D. 1941, University of Wisconsin.
- Robert L. Jones as associate professor, School of Journalism.  
 B.A. 1942, University of Wichita (Kansas); M.A. 1947, Ph.D. 1951, University of Minnesota.
- Arthur N. Milgram as associate professor of mathematics and mechanics.  
 B.A. 1933, Temple University; M.A. 1935, Ph.D. 1937, University of Pennsylvania.
- Iver J. Nygard as associate professor of soils.  
 B.S. 1924, M.S. 1926, Ph.D. 1933, University of Minnesota.
- Charlotte G. Wolff as associate professor, School of Home Economics.  
 B.S. 1935, New Jersey College for Women (Rutgers University); M.A. (H.E. Educ.) 1940, Teachers College, Columbia University; M.A. (Art History) 1952, Western Reserve University.

#### Assistant Professors

- Stephen G. Allen, Jr., as assistant professor, School of Business Administration.  
 B.A. 1944, University of Texas; M.A. 1950, University of Chicago; Ph.D. 1954, Stanford University.
- John C. Austin as clinical assistant professor, School of Dentistry.  
 B.A. 1944, D.D.S. 1945, M.S.D. 1950, University of Minnesota.
- Oscar Bjorndahl as clinical assistant professor, School of Dentistry.  
 D.D.S. 1925, University of Minnesota.
- Robert L. Bliss as assistant professor, School of Architecture.  
 B.Arch. 1949, Massachusetts Institute of Technology.
- Albert P. Earle as assistant professor of chemical engineering.  
 B.S. 1948, University of Pennsylvania; M.S. 1950, Princeton University.
- Frederick E. Ellis as assistant professor, College of Education.  
 B.A. 1938, Reed College; B.A. in Educ. 1942, Western Washington College of Education; M.Ed. 1944, Ed.D. 1948, Harvard University.

\* Served previously at the University of Minnesota, 1938-46.

Roy G. Francis as assistant professor of sociology.

B.A. 1946, Linfield College (McMinnville, Oregon); M.A. 1948, University of Oregon; Ph.D. 1950, University of Wisconsin.

Wendell P. Glick as assistant professor of English, Duluth Branch.

B.A. 1938, Bridgewater College (Virginia); M.S. 1940, Virginia Polytechnic Institute; M.A. 1945, Ph.D. 1949, Northwestern University.

Fred Gross as assistant professor and chief psychiatric social worker, University of Minnesota Hospitals.

B.A. 1940, M.A. 1943, University of Chicago.

Ann Hauser as assistant professor and acting director of public health nursing, School of Public Health.

B.S. 1944, M.P.H. 1951, University of Minnesota.

Lucile Holaday as assistant professor-extension economist in home management, Agricultural Extension Service.

B.S. 1940, M.S. 1952, Iowa State College.

Z. Zimmerman Hugus, Jr., as assistant professor on chemistry research funds.

B.A. 1943, Williams College; Ph.D. 1949, University of California.

Byrl J. Kennedy as assistant professor in medicine.

B.A. 1943, B.S. 1943, M.D. 1946, University of Minnesota; M.S. 1951, McGill University.

Murray Krieger as assistant professor of English.

M.A. 1948, University of Chicago; Ph.D. 1952, Ohio State University.

Harold C. Matson as assistant professor, Southern School of Agriculture, Waseca.

B.E. 1935, Moorhead State Teachers College; M.A. 1940, University of Minnesota.

Stephen Prager as assistant professor of physical chemistry.

B.S. 1947, Brown University; Ph.D. 1950, Cornell University.

Charles E. Ramsey as assistant professor of sociology.

B.S. 1947, Indiana State Teachers College; M.S. 1950, Ph.D. 1952, University of Wisconsin.

G. Robert Stange as assistant professor of English.

B.S. 1941, Harvard College; Ph.D. 1951, Harvard University.

C. Arthur Williams, Jr., as assistant professor, School of Business Administration.

B.A. 1947, Columbia College; M.A. 1949, Ph.D. 1952, Columbia University.

## APPOINTMENTS, 1953-54

### *Professors*

Lawrence E. Goodman as professor of mechanics and materials.

B.A. 1939, B.S. 1940, Ph.D. 1948, Columbia University; M.S. 1942, University of Illinois.

Elton L. Johnson as professor and head of poultry husbandry.

B.S.A. 1940, Oklahoma A & M College; M.S. 1942, Ph.D. 1948, Purdue University.

Marion I. Murphy as professor and director of public health nursing, School of Public Health.

B.S. 1936, University of Minnesota; M.P.H. 1946, University of Michigan.

Philip M. Raup as professor of agricultural economics.

B.A. 1939, University of Kansas; M.S. 1942, Ph.D. 1949, University of Wisconsin.

Murray A. Warmath as head football coach and professor of physical education and athletics.

B.S. 1934, University of Tennessee.

### *Associate Professors*

George Amberg as associate professor of general studies. (Served as visiting professor in 1952-53.)

Ph.D. 1929, University of Cologne (Germany).

Ned D. Bayley as associate professor of dairy husbandry.

B.S. 1940, Michigan State College; M.S. 1941, University of Minnesota; Ph.D. 1950, University of Wisconsin.

David K. Berninghausen as associate professor and director of the Library School.

B.A. 1936, Iowa State Teachers College (Cedar Falls); B.L.S. 1941, Columbia University School of Library Science; M.A. 1943, Drake University.

John A. Buttrick as associate professor, School of Business Administration.

B.S. 1941, Haverford College; M.A. 1947, Ph.D. 1950, Yale University.

Henry W. Riecken, Jr., as associate professor of sociology.

B.A. 1939, Ph.D. 1950, Harvard University; M.A. 1941, University of Connecticut.

Helen E. C. Sherrill as associate professor, School of Home Economics.

B.S. 1939, Kansas State Agricultural College; M.A. 1950, University of Nebraska; Ed.D. 1953, Teachers College, Columbia University.

John Sirjamaki as associate professor of sociology.

B.A. 1934, Carleton College; Ph.D. 1940, Yale University.

#### Assistant Professors

Barkev Y. Bakamjian as assistant professor of science and mathematics, Duluth Branch.

B.A. 1944, B.S. 1946, American University of Beirut; M.A. 1947, Ph.D. 1953, Columbia University.

Samuel G. Balkin as clinical assistant professor of surgery.

D.D.S. 1928, B.S. and B.M. 1935, M.D. 1936, University of Minnesota.

Jacob E. Bearman as assistant professor, School of Public Health.

B.A. 1936, M.A. 1938, Ph.D. 1947, University of Minnesota.

Ronald I. Beazley as assistant professor, School of Forestry.

B.Sc. 1949, University of New Brunswick; M.F. 1950, Yale University; Ph.D. 1953, Purdue University.

Mary L. Bouldin as assistant professor of professional education, Duluth Branch.

B.S. 1940, University of Missouri; M.S. 1948, University of Illinois.

Rodney A. Briggs as assistant professor-extension agronomist, Agricultural Extension Service.

B.S. 1948, University of Wisconsin; Ph.D. 1953, Rutgers University.

Jean A. Burgess as assistant professor of physical education for women.

B.S. 1942, Panzer College (East Orange, New Jersey); M.A. 1948, New York University.

Arnold F. Caswell as assistant professor of music education.

B.F.A. 1942, Southwestern University of Texas; M.A. 1948, Teachers College, Columbia University.

Frederick M. Chapman as assistant professor of physical education and athletics.

B.S. 1948, George Williams College of Chicago; M.Ed. 1950, University of Minnesota.

Theodore W. Clymer as assistant professor, College of Education.

B.S. 1949, Wisconsin State College (River Falls); M.A. 1951, Ph.D. 1952, University of Minnesota.

Edward Coen as assistant professor, School of Business Administration.

B.A. 1948, Hobart College; M.A. 1949, Yale University; Ph.D. 1952, London School of Economics.

Samuel O. Cornwell as assistant professor of anatomy.

B.S. 1944, M.S. 1948, University of North Carolina.

Charles F. Foreman as assistant professor of dairy husbandry.

B.S. 1948, M.S. 1949, Kansas State College; Ph.D. 1953, University of Missouri.

Kimon Friar as assistant professor in humanities, Duluth Branch.

B.A. 1934, University of Wisconsin; M.A. 1939, University of Michigan.

- Franz Gehrels as assistant professor, School of Business Administration.  
B.A. 1942, M.B.A. 1947, Ph.D. 1953, Stanford University.
- Gove Hambidge, Jr., as assistant professor of psychiatry and neurology.  
B.S. 1942, Haverford College; M.D. 1945, Yale University.
- Ermond H. Hartmans as assistant professor-extension economist in farm management, Agricultural Extension Service.  
M.S. 1948, Ph.D. 1950, Michigan State College.
- Herbert M. Hirsch as assistant professor of physiology.  
B.S. 1947, M.S. 1949, Ph.D. 1951, University of Illinois.
- Ralph H. Hopp as assistant professor and assistant director of University Libraries.  
B.S. 1943, University of Nebraska; M.S. in Lib. Sc. 1950, University of Illinois.
- Wallace H. Ito as assistant professor of mechanical engineering.  
B.S.M.E. 1944, Illinois Institute of Technology; Ph.D. 1951, University of Minnesota.
- Thor Kommedahl as assistant professor in plant pathology and botany.  
B.S. 1945, M.S. 1947, Ph.D. 1951, University of Minnesota.
- Rufus W. Lumry as assistant professor of physical chemistry.  
B.A. 1942, M.S. 1948, Ph.D. 1949, Harvard University.
- Charles J. Meyers as assistant professor, Law School.  
B.A. 1949, Rice Institute; LL.B. 1949, University of Texas.
- George S. Michaelsen as assistant professor-industrial health engineer, Students Health Service and School of Public Health.  
B.S. Chem.Eng. 1932, M.S. 1935, University of Minnesota.
- John C. Miller as clinical assistant professor of medicine.  
B.S. 1928, M.D. 1931, University of Minnesota.
- Wayland E. Noland as assistant professor of organic chemistry.\*  
B.A. 1948, University of Wisconsin; M.A. 1950, Ph.D. 1951, Harvard University.
- Helen L. Pilcher as assistant professor, School of Home Economics.  
B.S. 1941, Kansas State College; M.N.S. 1949, Ph.D. 1953, Cornell University.
- Gilford W. Remington as assistant professor and head, Duluth Office Extension Classes.  
B.Ed. 1928, Wisconsin State Teachers College (Eau Claire); M.A. 1939, University of Minnesota.
- Earl V. Rymer as assistant professor of music.  
Graduate of Juilliard School of Music, 1932.
- Charles A. Simkins as assistant professor-extension soils specialist, Agricultural Extension Service.  
B.S. 1948, M.S. 1950, Kansas State Agricultural College.
- Helen M. Slocum as assistant professor of physical education for women.  
B.S. 1931, M.Ed. 1943, University of Minnesota; Ph.D. 1953, State University of Iowa.
- LeVerne F. Snoxell as assistant professor of psychology and principal student personnel worker, Office of the Dean of Students.  
B.A. 1935, Yankton College; M.A. 1940, University of South Dakota; Ph.D. 1953, University of Denver.
- Dale K. Sorensen as assistant professor, School of Veterinary Medicine.  
D.V.M. 1946, Kansas State College; M.S. 1950, Ph.D. 1953, University of Wisconsin.
- Richard J. Stadther as assistant professor-extension horticulturist, Agricultural Extension Service.  
B.S. 1949, M.S. 1951, University of Minnesota.
- Thomas G. Sturgeon as assistant professor of humanities, Duluth Branch.  
B.A. 1938, Westminster College (New Wilmington, Pennsylvania); M.A. 1947, Ph.D. 1953, Harvard University.

\* Was a DuPont Fellow 1951-52 and a BX assistant professor 1952-53.

Deane A. Turner as assistant professor, Southern School of Agriculture, Waseca.

B.S. 1941, M.S. 1952, University of Minnesota.

Halvor Vermund as assistant professor, University of Minnesota Hospitals.

M.D. 1943, University of Oslo (Norway); Ph.D. 1951, University of Minnesota.

#### PROMOTIONS AND TRANSFERS, 1952-53

*Professor to Dean and Professor*

Walter W. Cook (College of Education)

*Assistant Dean to Associate Dean*

J. William Buchta (College of Science, Literature, and the Arts)

*Professor and Head to Academic Dean and Professor*

Raymond W. Darland (Duluth Branch)

*Director, Agricultural Experiment Station to Dean of the Institute of Agriculture and Professor of Bacteriology*

Harold Macy

*Associate Director, Agriculture Administration and Professor to Assistant Dean and Professor, Institute of Agriculture*

Theodore H. Fenske

*Professor of Agricultural Economics to Director of Resident Instruction and Assistant Dean, College of Agriculture, Forestry, and Home Economics and Professor of Agricultural Economics*

Austin A. Dowell

*Professor and Head, Poultry Husbandry to Director, Agricultural Experiment Station and Professor of Poultry Husbandry*

Hubert J. Sloan

*Professor and Head, Aeronautical Engineering to Professor and Head Aeronautical Engineering and Director, Rosemount Aeronautical Research Laboratories*

John D. Akerman

*Assistant Dean-Assistant Professor to Assistant Dean-Associate Professor*

Howard L. Horns (College of Medical Sciences)

*Acting University Librarian-Associate Professor to Director of University Libraries-Professor and Director of Library Instruction*

Edward B. Stanford

*Associate Professor-Chief Reference Librarian to Associate Professor-Assistant Director of University Libraries*

Harold G. Russell

*Assistant Professor, West Central School and Experiment Station, Morris, to Assistant Professor and Principal, Southern School of Agriculture, Waseca*

Bernard E. Youngquist

*Mille Lacs County Agricultural Agent-Assistant Professor to Assistant Professor and Assistant Superintendent, Northeast Experiment Station*

Ralph S. Grant

*Associate Professor to Professor*

A. H. Baggenstoss (Mayo Foundation—pathologic anatomy)

Allan H. Brown (College of Science, Literature, and the Arts—botany)

Howard B. Burchell (Mayo Foundation—medicine)

Hugh R. Butt (Mayo Foundation—medicine)

Robert G. Cerny (School of Architecture)

- Spencer B. Cleland (Institute of Agriculture—Agricultural Extension Service)  
 Winston A. Close (School of Architecture)  
 William H. Dankers (Institute of Agriculture—Agricultural Extension Service)  
 Malcolm B. Dockerty (Mayo Foundation—pathology)  
 Leon Festinger (College of Science, Literature, and the Arts—psychology and Laboratory for Research in Social Relations)  
 Ruth E. Grout (School of Public Health)  
 Wallace E. Herrell (Mayo Foundation—medicine)  
 Reynold A. Jensen (College of Medical Sciences—pediatrics)  
 Harry C. Johnson (Duluth Branch—laboratory school)  
 Robert J. Keller (Bureau of Institutional Research)  
 Harlan E. McClure (School of Architecture)  
 Edward J. Meehan (Institute of Technology—analytical chemistry)  
 Paul E. Meehl (College of Science, Literature, and the Arts—psychology)  
 William E. Morris (Institute of Agriculture—Agricultural Extension Service)  
 Edmund A. Nightingale (School of Business Administration)  
 Theron O. Odlaug (Duluth Branch—biology)  
 Ruth Palmer (Duluth Branch—professional education)  
 Orrin W. Potter (Institute of Technology—drawing and descriptive geometry)  
 Arnold Rose (College of Science, Literature, and the Arts—sociology)  
 Harold R. Searles (Institute of Agriculture—Agricultural Extension Service)  
 Dorothy Simmons (Institute of Agriculture—Agricultural Extension Service)  
 Leon C. Snyder (Institute of Agriculture—Agricultural Extension Service)  
 Arthur E. Stoppel (Institute of Technology—chemical engineering)  
 Minard W. Stout (University High School)  
 Hugh L. Turriffin (Institute of Technology—mathematics and mechanics)  
 Gerhard E. von Glahn (Duluth Branch—social studies)  
 Dennis W. Watson (College of Medical Sciences—bacteriology)  
 Lloyd A. Wilford (College of Science, Literature, and the Arts—anthropology)  
 Henry G. Zavoral (Institute of Agriculture—Agricultural Extension Service)

*Assistant Professor to Associate Professor*

- George W. Anderson (College of Science, Literature, and the Arts—history)  
 Kenneth M. Anderson (Law School)  
 William A. Billings (Institute of Agriculture—Agricultural Extension Service)  
 Werner Boehm (School of Social Work)  
 Robert C. Brasted (Institute of Technology—inorganic chemistry)  
 Ernest B. Brown (College of Medical Sciences—physiology)  
 Louis Coxe (College of Science, Literature, and the Arts—English)  
 Laurence K. Cutkomp (Institute of Agriculture—entomology and economic zoology)  
 Emmet Davidson (Duluth Branch—social studies)  
 Guy Desgranges (College of Science, Literature, and the Arts—Romance languages)  
 Otto E. Domian (College of Education)  
 Deward O. Ferris (Mayo Foundation—surgery)  
 Ellen A. Frogner (Duluth Branch—humanities)  
 Kenneth L. Graham (College of Science, Literature, and the Arts—speech and theater arts)  
 Lawrence A. Harris (Institute of Technology—electrical engineering)  
 Wesley N. Herr (Institute of Technology—inorganic chemistry)  
 Thomas B. Irving (College of Science, Literature, and the Arts—Romance languages)  
 Harold E. Jones (Institute of Agriculture—Agricultural Extension Service)

Florence J. Julian (School of Nursing)  
 Edward H. Lambert (Mayo Foundation—experimental metabolism)  
 Frank A. Lassman (College of Science, Literature, and the Arts—audiology and speech)  
 Allan E. Martin (Institute of Technology—School of Mines and Metallurgy)  
 Leo Marx (College of Science, Literature, and the Arts—English)  
 Robert E. Moore (College of Science, Literature, and the Arts—English)  
 Howard M. Odel (Mayo Foundation—medicine)  
 Roger B. Page (College of Science, Literature, and the Arts—administration)  
 Emmett L. Pinnell (Institute of Agriculture—agronomy and plant genetics)  
 Raymond D. Pruitt (Mayo Foundation—medicine)  
 Samuel Schwartz (College of Medical Sciences—experimental medicine)  
 Robert F. Spencer (College of Science, Literature, and the Arts—anthropology)  
 Luther Thompson (Mayo Foundation—bacteriology)  
 Lloyd Ulman (School of Business Administration)  
 Walter K. Vivrett (School of Architecture)  
 Ralph W. Wayne (Institute of Agriculture—Agricultural Extension Service)  
 Harold W. Wilson (School of Journalism)  
 John R. Winckler (College of Science, Literature, and the Arts—physics)

*Clinical Assistant Professor to Clinical Associate Professor*

J. Richards Aurelius (College of Medical Sciences—radiology)  
 Blanchard K. Braum (School of Dentistry)  
 Harry W. Christianson (College of Medical Sciences—surgery)  
 Daniel L. Fink (College of Medical Sciences—radiology)  
 Lyle A. French (College of Medical Science—neurosurgery)  
 Jerome A. Hilger (College of Medical Sciences—otology)  
 Walter L. Hoffman (College of Medical Sciences—ophthalmology)  
 Charles Hymes (College of Medical Sciences—ophthalmology)  
 N. Kenneth Jensen (College of Medical Sciences—general surgery)  
 George E. Moore (College of Medical Sciences—surgery)  
 Bernard J. O'Loughlin (College of Medical Sciences—radiology)  
 Paul S. Parker (School of Dentistry)  
 Horatio B. Sweetser, Jr. (College of Medical Sciences—medicine)

*Assistant Professor to Clinical Associate Professor*

F. John Lewis (College of Medical Sciences—surgery)

*Research Associate to Associate Professor*

W. Paul Koella (College of Medical Sciences—physiology)

*Research Associate and Assistant Professor to Associate Professor*

C. Harold Stone (School of Business Administration)

*Lecturer to Associate Professor*

Arthur E. Smith (Duluth Branch—art)

*Instructor to Associate Professor*

Orrin C. Turnquist (Institute of Agriculture—Agricultural Extension Service)

*Research Associate to Assistant Professor*

Walter H. Uphoff (General Extension Division)

*Lecturer to Assistant Professor*

Mason A. Hicks (Duluth Branch—speech and dramatics)  
 Hubert M. Loy (Duluth Branch—professional education)

*Instructor to Assistant Professor*

Robert Ames (College of Science, Literature, and the Arts—general studies)  
 Edwin D. Bayrd (Mayo Foundation—medicine)  
 Theresa A. Bell (Physical Education for Women)

- Marthe Blinoff (College of Science, Literature, and the Arts—linguistics and comparative philology)
- Spencer F. Brown (College of Medical Sciences—pediatrics)
- Donald C. Campbell (Mayo Foundation—medicine)
- Clarke Chambers (College of Science, Literature, and the Arts—history)
- John Coe (College of Medical Sciences—pathology)
- Guy W. Daugherty (Mayo Foundation—medicine)
- Floyd W. Denny (College of Medical Sciences—pediatrics)
- James W. DuShane (Mayo Foundation—pediatrics)
- Albert Faulconer, Jr. (Mayo Foundation—anesthesiology)
- Albert B. Hagedorn (Mayo Foundation—medicine)
- Otis F. Hall (School of Forestry)
- George A. Hallenbeck (Mayo Foundation—physiology and surgery)
- James F. Hammarsten (College of Medical Sciences—medicine)
- Roy G. Holly (College of Medical Sciences—obstetrics and gynecology)
- Robert B. Howard (College of Medical Sciences—postgraduate medical education)
- Joseph M. Janes (Mayo Foundation—orthopedic surgery)
- John A. Johnson (College of Medical Sciences—physiology)
- Lawrence H. Johnston (College of Science, Literature, and the Arts—physics)
- Curtis L. Larson (Institute of Agriculture—agricultural engineering)
- Robert E. Luckey (College of Science, Literature, and the Arts—Romance languages)
- Colin S. MacCarty (Mayo Foundation—neurosurgery)
- Richard M. Magraw (College of Medical Sciences—psychiatry and neurology)
- James McConkie (College of Science, Literature, and the Arts—music)
- William J. Moonan (College of Education)
- Thomas Morley (College of Science, Literature, and the Arts—botany)
- Howard A. Morris (Institute of Agriculture—dairy husbandry)
- Alexander G. Park (School of Journalism)
- John W. Pender (Mayo Foundation—anesthesiology)
- Joseph H. Pratt (Mayo Foundation—surgery)
- William E. Rempel (Institute of Agriculture—animal husbandry)
- Delmar J. Rodabaugh (Institute of Agriculture—rhetoric)
- Louis T. Safer (General College)
- Charles H. Scheifley (Mayo Foundation—medicine)
- Richard M. Shick (Mayo Foundation—medicine)
- William W. Stead (College of Medical Sciences—medicine)
- Charles F. Stroebel (Mayo Foundation—medicine)
- John E. Turner (College of Science, Literature, and the Arts—political science)
- Robert A. Ulstrom (College of Medical Sciences—pediatrics)
- Frederick H. Van Bergen (College of Medical Sciences—surgery)
- Elliot H. Weinberg (Duluth Branch—mathematics)
- Raymond S. Wolf (Institute of Agriculture—Agricultural Extension Service)
- Helen J. Yesner (School of Social Work)
- Clinical Instructor to Assistant Professor*
- Harry Z. Mellins (College of Medical Sciences—radiology)
- Clinical Instructor to Clinical Assistant Professor*
- Stuart L. Arey (College of Medical Sciences—pediatrics)
- Samuel S. Beirstein (College of Medical Sciences—surgery)
- Leslie Caplan (College of Medical Sciences—psychiatry and neurology)
- Tague C. Chisholm (College of Medical Sciences—general surgery)
- Philip Feinberg (College of Medical Sciences—psychiatry and neurology)
- Donald J. Ferguson (College of Medical Sciences—general surgery)
- Ernest M. Hammes, Jr. (College of Medical Sciences—psychiatry and neurology)
- Richard C. Horns (College of Medical Sciences—ophthalmology)
- Wyman E. Jacobson (College of Medical Sciences—medicine)

Conrad I. Karleen (College of Medical Sciences—general surgery)  
 Gjert M. Kelby (College of Medical Sciences—radiology)  
 John W. LaBree (College of Medical Sciences—medicine)  
 Robert F. McGandy (College of Medical Sciences—general surgery)  
 Zondal R. Miller (College of Medical Sciences—psychiatry and neurology)  
 Herbert F. R. Plass (College of Medical Sciences—medicine)  
 Erwin M. Schaffer (School of Dentistry)  
 Robert J. Tenner (College of Medical Sciences—proctology)  
 Robert Utendorfer (College of Medical Sciences—general surgery)  
 Robert W. Wiethoff (School of Dentistry)

#### PROMOTIONS AND TRANSFERS, 1953-54

##### *Assistant Dean to Associate Dean*

John G. Darley (Graduate School)

##### *Academic Dean and Professor to Provost and Professor*

Raymond W. Darland (Duluth Branch)

##### *Professor and Head, Social Studies to Academic Dean and Professor*

Thomas W. Chamberlin (Duluth Branch)

##### *Professor and Acting Chief to Professor and Head*

Jonas J. Christensen (Institute of Agriculture—plant pathology and botany)

##### *Professor-Extension Horticulturist to Professor and Head*

Leon C. Snyder (Institute of Agriculture—horticulture)

##### *Instructor and Acting Head to Associate Professor and Head*

William R. Pritchard (School of Veterinary Medicine—division of veterinary medicine)

##### *Principal Student Personnel Worker to Assistant Professor and Principal Student Personnel Worker*

Forrest G. Moore (Office of the Dean of Students—foreign student adviser)

##### *Senior Editor to Associate Professor and Director of University of Minnesota Press*

Helen Clapesattle

##### *Associate Professor to Professor*

Paul D. Boyer (Institute of Agriculture—agricultural biochemistry)  
 Walter J. Breckenridge (Museum of Natural History)  
 Randolph M. Brown (School of Forestry)  
 Thomas W. Chamberlin (Duluth Branch—social studies)  
 John W. Clark (College of Science, Literature, and the Arts—English)  
 John L. Urmatt (Mayo Foundation—urology)  
 Roxana R. Ford (College of Education)  
 M. Elizabeth Fuller (Institute of Child Welfare)  
 Henry J. Griffiths (School of Veterinary Medicine)  
 Richard G. Guilford (School of Social Work)  
 Gladstone B. Heisig (Institute of Technology—inorganic chemistry)  
 Robert Jenness (Institute of Agriculture—agricultural biochemistry)  
 Raymond F. Keating, Jr. (Mayo Foundation—medicine)  
 Miles S. Kersten (Institute of Technology—civil engineering and hydro-mechanics)  
 William Kubicek (College of Medical Sciences—physical medicine and rehabilitation)  
 Clarence B. Lindquist (Duluth Branch—mathematics and engineering)  
 J. Lewis Maynard (Institute of Technology—inorganic chemistry)  
 Kenneth N. Ogle (Mayo Foundation—physiological optics)  
 John F. Ripken (Institute of Technology—St. Anthony Falls Hydraulic Laboratory)  
 Howard P. Rome (Mayo Foundation—psychiatry)

George R. Sprague (Mayo Foundation—medicine)  
 Edward C. Stafne (Mayo Foundation—dental surgery)  
 Faith Thompson (College of Science, Literature, and the Arts—history)  
 Stewart C. Thomson (College of Medical Sciences—School of Public Health)  
 Alice F. Tyler (College of Science, Literature, and the Arts—history)

*Clinical Associate Professor to Clinical Professor*

Joseph C. Michael (College of Medical Sciences—neuropsychiatry)  
 Harold H. Noran (College of Medical Sciences—neurology)  
 Harold O. Peterson (College of Medical Sciences—radiology)  
 Charles E. Rea (College of Medical Sciences—general surgery)

*Assistant Professor to Associate Professor*

Harold B. Allen (College of Science, Literature, and the Arts—English)  
 Joseph T. Anderson (College of Medical Sciences—physiological hygiene)  
 Parker O. Anderson (Institute of Agriculture—Agricultural Extension Service)  
 William H. Bickel (Mayo Foundation—orthopedic surgery)  
 Reginald G. Bickford (Mayo Foundation—physiology)  
 Clarence H. Boeck (University High School)  
 Richard G. Bond (Students' Health Service—public health engineering)  
 May Brodbeck (College of Science, Literature, and the Arts—philosophy)  
 Cora E. Cooke (Institute of Agriculture—Agricultural Extension Service)  
 Mark B. Coventry (Mayo Foundation—orthopedic surgery)  
 Alfred E. Cronk (Institute of Technology—aeronautical engineering)  
 William H. Dearing (Mayo Foundation—medicine)  
 Monroe D. Donsker (College of Science, Literature, and the Arts—mathematics)  
 William H. Edson (College of Education)  
 Frederick E. Ellis (College of Education)  
 Ned A. Flanders (College of Education)  
 Earl E. Gambill (Mayo Foundation—medicine)  
 Bernard R. Gelbaum (College of Science, Literature, and the Arts—mathematics)  
 Robert A. Good (College of Medical Sciences—pediatrics)  
 Laurence F. Greene (Mayo Foundation—urology)  
 Malcolm M. Hargraves (Mayo Foundation—medicine)  
 William R. Hastie (College of Education)  
 Mellor R. Holland (School of Dentistry)  
 Robert J. Holloway (School of Business Administration)  
 Roy G. Holly (College of Medical Sciences—obstetrics and gynecology)  
 John Hospers (College of Science, Literature, and the Arts—philosophy)  
 Robert B. Howard (College of Medical Sciences—continuation medical education)  
 Herbert S. Isbin (Institute of Technology—chemical engineering)  
 Paul Ivory (College of Education)  
 James R. Jensen (School of Dentistry)  
 Charlotte Kirchner (Institute of Agriculture—Agricultural Extension Service)  
 Joseph Kwiat (College of Science, Literature, and the Arts—general studies)  
 Wilbur L. Layton (Office of the Dean of Students—Student Counseling Bureau)  
 Ramer D. Leighton (Institute of Agriculture—Agricultural Extension Service)  
 Irvin E. Liener (Institute of Agriculture—agricultural biochemistry)  
 John M. MacKenzie (Institute of Technology—mechanical engineering)  
 Frank D. Mann (Mayo Foundation—clinical pathology)  
 Joseph P. McKenna (School of Business Administration)  
 Philip G. Morton (College of Science, Literature, and the Arts—art)  
 Howard F. Nelson (College of Education)  
 Ruby B. Pernell (School of Social Work)  
 Walter W. Quirt (College of Science, Literature, and the Arts—art)

Herman Ramras (College of Science, Literature, and the Arts—German)  
 Maynard C. Reynolds (College of Education)  
 William A. Rosenthal (Duluth Branch—humanities)  
 Donald K. Smith (College of Science, Literature, and the Arts—speech and theater arts)  
 R. Dorothy Sundberg (College of Medical Sciences—anatomy)  
 Ben B. Sutton (School of Business Administration)  
 Frank D. Svoboda (Institute of Agriculture—Agricultural Extension Service)  
 John E. Wertz (Institute of Technology—physical chemistry)  
 Dorothy Whitmore (School of Social Work)  
 Benjamin Willerman (Office of the Dean of Students—Student Counseling Bureau)  
 Donald Woods (Institute of Agriculture—rhetoric)  
 Charles A. Wright (Law School)  
 Henry H. Young (Mayo Foundation—orthopedic surgery)

*Clinical Assistant Professor to Associate Professor*

Wendell H. Hall (College of Medical Sciences—medicine)

*Clinical Assistant Professor to Clinical Associate Professor*

Clifford O. Erickson (College of Medical Sciences—psychiatry and neurology)  
 Oscar Lipshultz (College of Medical Sciences—radiology)  
 John P. Medelman (College of Medical Sciences—radiology)  
 Wallace P. Ritchie (College of Medical Sciences—neurosurgery)

*Lecturer to Associate Professor*

Gordon M. A. Mork (College of Education)  
 James L. Threlkeld (Institute of Technology—mechanical engineering)

*Instructor to Associate Professor*

Rena Boyle (School of Nursing)

*Lecturer to Assistant Professor*

Robert F. Pierce (Duluth Branch—speech and dramatics)

*Research Associate to Assistant Professor*

Laddie J. Elling (Institute of Agriculture—agronomy and plant genetics)

*Research Fellow to Assistant Professor*

Ray C. Anderson (College of Medical Sciences—pediatrics)  
 Henning W. Swanson (School of Agriculture)

*Instructor to Assistant Professor*

Milton W. Anderson (Mayo Foundation—medicine)  
 Edward A. Banner (Mayo Foundation—obstetrics and gynecology)  
 Ellis S. Benson (College of Medical Sciences—hospital laboratories—medicine)  
 Lawrence J. Biever (Institute of Agriculture—Agricultural Extension Service)  
 Harriet Blodgett (Institute of Child Welfare)  
 Else Bockstruck (Physical Education for Women)  
 Ian A. Brown (College of Medical Sciences—neurology)  
 Daniel Bryan (College of Science, Literature, and the Arts—general studies)  
 James C. Cain (Mayo Foundation—medicine)  
 Edwin F. Cook (Institute of Agriculture—entomology and economic zoology)  
 Talbert Cooper (Mayo Foundation—medicine)  
 David C. Dahlin (Mayo Foundation—pathology)  
 J. Earle Estes (Mayo Foundation—medicine)  
 Jesse E. Fant (Institute of Technology—civil engineering and hydromechanics)  
 Homer D. Fausch (Northwest School of Agriculture)  
 David W. French (Institute of Agriculture—plant pathology and botany)

- Theda Hagenah (Office of the Dean of Students—Student Counseling Bureau)  
 Borghild Hansen (College of Medical Sciences—occupational therapy)  
 Helen Hauptfuehrer (Physical Education for Women)  
 Evelyn Helgerson (Institute of Child Welfare)  
 John R. Hill (Mayo Foundation—proctology)  
 Ruth Hovde (College of Medical Sciences—medical technology)  
 Warren E. Ibele (Institute of Technology—mechanical engineering)  
 John W. Kirklin (Mayo Foundation—surgery)  
 Esther E. Knight (School of Home Economics)  
 Howard F. Koeper (School of Architecture)  
 Robert F. Lambert (Institute of Technology—electrical engineering)  
 Ellis Livingston (Duluth Branch—social studies)  
 William B. F. Mackay (School of Mines and Metallurgy)  
 Stephen D. Mills (Mayo Foundation—pediatrics)  
 Gerald M. Needham (Mayo Foundation—bacteriology)  
 Gerhard Neubeck (Office of the Dean of Students—Student Counseling Bureau)  
 Ruby G. Overmann (College of Medical Sciences—physical therapy)  
 Charles A. Owen, Jr. (Mayo Foundation—clinical pathology)  
 Stanley F. Paulson (College of Science, Literature, and the Arts—general studies)  
 Gustavus A. Peters (Mayo Foundation—medicine)  
 Paul H. Ptacek (Dean of Students—Speech and Hearing Clinic)  
 Clarence J. Rowe (College of Medical Sciences—psychiatry)  
 William G. Sauer (Mayo Foundation—medicine)  
 George P. Sayre (Mayo Foundation—pathology)  
 William C. Stevens (College of Science, Literature, and the Arts—junior college)  
 Harold A. Stueland (Duluth Branch—art)  
 John M. Sullivan (College of Science, Literature, and the Arts—Romance languages)  
 Albert Tezla (Duluth Branch—humanities)  
 Fred J. Triplett (Duluth Branch—art)  
 Laurentius O. Underdahl (Mayo Foundation—medicine)  
 Lewis W. Wannamaker (College of Medical Sciences—pediatrics)  
 Lewis B. Woolner (Mayo Foundation—pathology)  
 Leslie Zieve (College of Medical Sciences—medicine)

*Clinical Instructor to Assistant Professor*

- Davitt A. Felder (College of Medical Sciences—surgery)  
 Bernard Zimmermann (College of Medical Sciences—surgery)

*Clinical Instructor to Clinical Assistant Professor*

- Harold F. Buchstein (College of Medical Sciences—neurosurgery)  
 Harold F. Flanagan (College of Medical Sciences—pediatrics)  
 Earl R. Horr (School of Dentistry)  
 Robert A. Green (College of Medical Sciences—medicine)  
 John W. Johnson (College of Medical Sciences—medicine)  
 James G. Myhre (College of Medical Sciences—medicine)  
 Leonard F. Peltier (College of Medical Sciences—orthopedic surgery)  
 Clarence N. Rierson (School of Dentistry)  
 Andrew W. Shea (College of Medical Sciences—medicine)  
 A. Boyd Thomes (College of Medical Sciences—medicine)  
 Leonard A. Titrud (College of Medical Sciences—neurosurgery)

LEAVES OF ABSENCE, 1952-53

- Howard L. Horns, assistant dean of the medical sciences and associate professor of medicine, leave without salary, beginning April 16, 1953, for military service.  
 Horace T. Morse, dean and professor, General College, leave without salary, July 7 to August 1, 1952, to teach in the summer session at Michigan State College.

- Henry E. Allen, professor and coordinator of students' religious activities, leave without salary, May 16 to June 15, 1953, for extended vacation trip to Europe.
- Gaylord W. Anderson, Mayo professor and director, School of Public Health, leave with salary, February 7 to March 18, 1953, for a public health teaching mission to Egypt sponsored by the World Health Organization.
- H. Harvard Arnason, professor and chairman, Department of Art, continuation of leave for 20 per cent time without salary for 1952-53, to serve as director, Walker Art Center.
- Clifford P. Archer, professor, College of Education, leave without salary for 1952-53, to serve with Institute of Inter-American Affairs Education Division, Washington, D. C., on program planning and evaluating educational programs in Central and South America.
- Richard T. Arnold, professor of organic chemistry, leave without salary for 1952-53, to serve as scientific attaché in the U.S. Embassy being established at Bonn, Germany.
- Clara B. Army, professor of home economics education, leave with salary, October 16 to December 15, 1952 and without salary for 50 per cent time during winter quarter of 1952-53, on account of illness.
- Raymond W. Brink, professor and chairman of mathematics, sabbatical furlough for spring quarter of 1952-53, for writing, study, and travel in Europe.
- Leo J. Brueckner, professor, College of Education, sabbatical furlough for 1952-53, to study clinical practices in educational diagnoses in leading centers and methods used by the schools introducing these practices, time to be spent in New York City, Philadelphia, Stanford University, Los Angeles, and European centers.
- Mitchell V. Charnley, professor, School of Journalism, leave without salary for 1952-53, to serve as visiting lecturer at the University of Florence, Italy, under the Fulbright Act.
- Asher N. Christensen, professor of political science, leave with salary, September 16-28, 1952, on account of late return to the University after teaching in the Salzburg Seminar abroad.
- Charles L. Critchfield, professor of physics, leave without salary October 16, 1952 to June 15, 1953, for work at Los Alamos Scientific Laboratory.
- Edward W. Davis, professor, Mines Experiment Station, continuation of leave without salary for 10 per cent time for work on the taconite development program at Babbitt, Minnesota.
- Leon Festinger, professor of psychology and Laboratory for Research in Social Relations, leave without salary, July 1-21, 1952, to attend a conference on the experimental verification of mathematical theories in social science at Santa Monica, California, and with salary, April 12 to May 30, 1953, to serve as an American consultant to the Ford Foundation Organization for Comparative Social Research in a pooling of resources in the areas of public opinion research and small group experiments, time to be spent in Amsterdam and London.
- James Gray, professor of English, continuation of leave without salary for 1952-53, to write the history of General Mills, Inc.
- Ruth E. Grout, professor, School of Public Health, leave without salary, March 1 to June 15, 1953, to assume the direction of the Health Educators Conference to be held in London sponsored by the World Health Organization.
- Newman A. Hall, professor of mechanical engineering, leave for 75 per cent time without salary for 1952-53, to serve as director, Division of Engineering Sciences, Office of Ordnance Research.
- Dale B. Harris, professor, Institute of Child Welfare, leave without salary, July 1 to August 15, 1952, to serve as visiting professor Stanford University.
- Starke R. Hathaway, professor and director, division of clinical psychology, psychiatry and neurology, leave without salary for 1952-53, for teaching and research at Stanford University.
- Donald B. Lawrence, professor of botany, leave without salary for spring quarter of 1952-53, to devote all his time to research.

- Benjamin E. Lippincott, professor of political science, leave without salary for winter and spring quarters of 1952-53, to serve as visiting professor at Stanford University.
- Robert Livingston, professor of physical chemistry, sabbatical furlough April 1 to June 15, 1953, for further study of the primary act of the photochemistry of chlorophyll.
- Philip W. Manson, professor of agricultural engineering, leave without salary, October 1, 1952 to January 31, 1953, to accept an assignment by the Food and Agriculture Organization of the United Nations as expert technical assistant to the Hebrew Institute of Technology in Hadar Carmel, Haifa, Israel.
- Harlan E. McClure, professor, School of Architecture, sabbatical furlough for 1952-53, to accept a Fulbright award as visiting professor at Cambridge University and Architectural Association in London.
- Paul E. Miller, professor and director, Agricultural Extension Service, Institute of Agriculture, leave without salary, November 16 to December 7, 1952, to serve as a consultant to the Selection Board of the State Department to evaluate performance records of foreign service personnel; with salary February 9 to March 15, 1953, to accept invitation from Mutual Security Administration to serve on five-man commission to Denmark to survey effectiveness of American foreign aid programs.
- Carl L. Nordly, professor of physical education and athletics for men, leave without salary, March 1 to May 31, 1953, to serve in the community recreation project, Educational Exchange Service, Department of State, in the Bremen-Hanover area in Germany.
- Harold S. Quigley, professor of political science, sabbatical furlough for the fall and winter quarters, 1952-53, to complete research and writing of a book on postwar Japanese government and politics; with salary for the spring quarter of 1952-53 on account of illness.
- Leo G. Rigler, professor and chief of radiology, leave for 50 per cent time without salary, February 1 to March 31, 1953, to serve as a member of a medical scientific team on a mission to India under the auspices of the World Health Organization and the Unitarian Service Committee.
- James J. Ryan, professor of mechanical engineering, continuation of leave for 50 per cent time without salary for 1952-53, to continue work in Aeronautical Research Laboratory of General Mills, Inc., in the development of electro-mechanical equipment and specialized instrumentation.
- Arthur J. Schwantes, professor and chief of agricultural engineering, leave without salary, September 1, 1952 to August 31, 1953, to accept an assignment by the Office of Foreign Agricultural Relations, U.S. Department of Agriculture, as agriculturist, Point IV, with headquarters in Cairo, Egypt.
- Wesley W. Spink, professor of medicine, leave with salary, September 16 to November 1, 1952, to serve as consultant for the World Health Organization in Spain.
- Elvin C. Stakman, professor and chief, plant pathology and botany, leave with salary, November 5 to December 5, 1952, to attend the UNESCO general conference in Paris, France.
- Lewis Thomas, professor of pediatrics and medicine, leave with salary, April 1 to May 31, 1953, to make a survey of rheumatic fever research under the sponsorship of the Rockefeller Foundation in England and the continent.
- Arthur R. Upgren, professor, School of Business Administration, leave without salary, winter and spring quarters, 1952-53, for travel in Europe on a Fulbright Fellowship.
- Richard L. Varco, professor of surgery, continuation of leave without salary for 20 per cent time for 1952-53, for service at Veterans' Hospital.
- Roland S. Vaile, professor, School of Business Administration, leave with salary for winter quarter of 1952-53, on account of illness.
- James Aliferis, associate professor of music, leave without salary for 1952-53, to engage in research on a grant from the Fund for the Advancement of Education.
- Josef Brozek, associate professor, Laboratory of Physiological Hygiene, sabbatical furlough, May 16 to November 30, 1953, for research on body composition, food intake, activity and age under nutritional conditions using

- the laboratory facilities of the Institute of Work Hygiene, Yugoslav Academy of Sciences.
- Rudolph W. Delton, clinical associate professor, School of Dentistry, leave without salary for the winter quarter of 1952-53, to visit brother in South America.
- Ernestine C. Donaldson, associate professor, School of Business Administration, leave with salary, January 7 to February 15, 1953, on account of illness.
- Robert M. Douglass, associate professor-state leader, program planning, Agricultural Extension Service, leave with salary, June 15-27, 1953, for annual military training.
- Marshall C. Hervey, associate professor of dairy husbandry, leave with salary, December 8, 1952 to January 24, 1953, on account of illness.
- F. John Lewis, clinical associate professor of surgery, leave without salary for 27 per cent time for 1952-53, to serve at the Anoka State Hospital.
- Rodney C. Loehr, associate professor of history, continuation of leave without salary for 1952-53, to complete assignment in the history division of the U.S. Department of State.
- Warren G. Meyer, associate professor, College of Education, sabbatical furlough for 1952-53, to improve background for teaching and advising graduate students, time to be spent at University of Colorado.
- Francis B. Moore, associate professor of science and mathematics, Duluth Branch, leave with salary, January 21 to March 15, 1953, and 50 per cent time without salary, March 16 to June 15, 1953, on account of illness.
- Benjamin Nelson, associate professor of general studies, leave without salary for 1952-53, to accept a teaching internship in general education from Columbia University, granted through funds from Carnegie Foundation.
- Earl A. Nelson, clinical associate professor, School of Dentistry, leave without salary for 1952-53, research on dental castings.
- Theron O. Odlaug, associate professor of science and mathematics, Duluth Branch, sabbatical furlough for 1952-53, for research in parasitology at Ohio State University and at the University Biological Section, Put-in-Bay, Ohio.
- George O. Pierce, associate professor, School of Public Health, leave without salary for 1952-53, to serve as chief of the Environmental Sanitation Branch, Division of Public Health, requested by Pan-American Sanitary Bureau.
- John Rood, associate professor of art, leave without salary for 1952-53, to complete several large commissions.
- Skuli Rutford, associate professor-assistant director, Agricultural Extension Service, leave without salary, August 13 to October 31, 1952, to accept assignment with the Mutual Security Agency in Iceland in connection with the revision of their agricultural services to farmers.
- Ernst Simonson, associate professor, Laboratory of Physiological Hygiene, continuation of 25 per cent time leave without salary for 1952-53, to serve at Veterans and Mt. Sinai Hospitals doing consultation work in electrocardiography.
- Malcolm B. Stinson, associate professor, School of Social Work, 75 per cent time leave without salary for winter and spring quarters of 1952-53, to design a comprehensive research program for the Greater St. Paul Community Chest and Council.
- C. Harold Stone, associate professor, School of Business Administration, Industrial Relations Center, leave without salary, September 1, 1952 to January 31, 1953, on account of injury.
- Chester W. Wood, associate professor and director, Student Personnel Services, Duluth Branch, continuation of leave without salary, July 1 to November 30, 1952, to serve as education specialist with United Nations Educational, Scientific, and Cultural Organization in Lima, Peru.
- Joseph T. Anderson, assistant professor, Laboratory of Physiological Hygiene, continuation of 25 per cent time leave without salary for 1952-53, to spend time in work for the State of Minnesota Mental Health Authority in cooperative research at Hastings Hospital.
- Spencer F. Brown, assistant professor of pediatrics, leave without salary, January 1 to June 30, 1953, for military service.

- Donald W. Calhoun, assistant professor of general studies, leave without salary for 1952-53, to complete two books now in progress.
- Maurice F. Connery, assistant professor, School of Social Work, leave without salary for 1952-53, for work on Doctor's degree at Columbia University.
- Guy Desgranges, assistant professor of Romance languages, sabbatical furlough for 1952-53, to complete his book on the technique of Bernanos as a novelist.
- Lorenz E. Eitner, assistant professor of art, leave without salary for 1952-53, to accept a Fulbright award in Belgium.
- David D. Erdman, assistant professor of English, leave without salary for 1952-53, to serve as visiting professor at Duke University.
- Roy G. Francis, assistant professor of sociology, leave without salary for 1952-53, to accept a Social Science Research Council Fellowship for study in mathematics and research methods.
- Harold Goldstein, assistant professor, Professional Education, Duluth Branch, continuation of leave without salary for 1952-53, to serve as librarian with the U.S. Department of State in Colombo, Ceylon.
- Inez M. Hobart, assistant professor-extension nutritionist, Agricultural Extension Service, leave without salary, April 5-18, 1953, for extended vacation.
- Elmer M. Johnson, assistant professor, School of Agriculture, leave with salary, January 19 to March 31, 1953, on account of illness.
- John A. Johnson, assistant professor of physiology, leave without salary for 1952-53, to study in Copenhagen under the auspices of the National Science Foundation.
- Robert E. Luckey, assistant professor of Romance languages, leave with salary, winter quarter of 1952-53 and March 15-31, 1953, and 50 per cent time without salary, April 1 to June 15, 1953, on account of illness.
- Alexander R. MacLean, assistant professor, Mayo Foundation, leave without salary, July 1, 1952 to June 30, 1954, granted by administration of Mayo Clinic.
- Richard M. Magraw, assistant professor, psychiatry and neurology research funds and medicine, leave without salary, January 17 to June 30, 1953, for military service.
- Gerald R. McKay, assistant professor-extension specialist, visual education, Agricultural Extension Service, leave without salary, December 24, 1952 to December 31, 1953, to accept an assignment with Mutual Security Agency in Europe.
- Robert E. Moore, assistant professor of English, sabbatical furlough for 1952-53, to carry on a research project primarily in the British Museum in London.
- Evelyn R. Morrow, assistant professor-district supervisor home agent work, Agricultural Extension Service, sabbatical furlough October 27, 1952 to June 30, 1953, to study at University of Chicago on a Farm Foundation Scholarship, working toward a Master's degree.
- John E. Nafe, assistant professor of physics, leave without salary for 1952-53, to work on urgent war research at Columbia University under the Office of Naval Research.
- Moses Passer, assistant professor of science and mathematics, Duluth Branch, leave without salary for 1952-53, for research work at the University of Illinois.
- Stanley Schachter, assistant professor of psychology, leave without salary for 1952-53, to accept a Fulbright Fellowship at University of Amsterdam.
- Dorothy D. Smith, assistant professor of professional education, Duluth Branch, continuation of leave without salary for 1952-53, to continue her work in South America.
- James E. Smith, assistant professor of humanities, Duluth Branch, sabbatical furlough for 1952-53, to do graduate work at Eastman School of Music.
- Spencer M. Smith, Jr., assistant professor, School of Business Administration, leave without salary for 1952-53, to accept position as chief division economist, Food and Restaurant Division, Office of Price Stabilization, Washington, D. C.
- Charles E. Stanford, clinical assistant professor of ophthalmology and otolaryngology, leave without salary for 1952-53, for personal reasons.

- William W. Stead, assistant professor of medicine, leave without salary, February 10 to June 30, 1953, for military service.
- John A. Stovel, assistant professor, School of Business Administration, continuation of leave without salary for 1952-53, to recuperate from a recurring illness and to straighten out business affairs.
- Fae Y. Tichy, assistant professor of psychiatry and neurology, continuation of 9 per cent time leave without salary for 1952-53, to serve at Anoka State Hospital.
- Edwin J. Volden, assistant professor, West Central School and Experiment Station, leave with salary, July 28 to September 15, 1952, on account of illness.
- Ward M. Wells, assistant professor of physical education, Duluth Branch, sabbatical furlough for 1952-53, for graduate study and to work on the planning for the development and improvement of Rock Hill at Duluth as a ski and winter sport facility.

#### LEAVES OF ABSENCE, 1953-54

- James L. Morrill, president of the University, leave with salary, August 1-15, 1953, as the designated delegate of the Association of American Universities for the purpose of visiting British and continental universities.
- Harold S. Diehl, dean, College of Medical Sciences, leave with salary, May 3-31, 1954, to attend the sessions of the World Health Organization in Geneva, Switzerland as a non-government delegate.
- Athelstan F. Spilhaus, dean and professor, Institute of Technology, leave with salary, November 11 to December 2, 1953, to attend the Eighth Pacific Science Congress at the University of the Philippines as one of ten United States delegates and as a member of the official delegation of the National Research Council.
- Robert E. Summers, dean of admissions and records, leave with salary, August 14 to September 4, 1953, to represent the University of Minnesota on the summer naval ROTC cruise.
- J. William Buchta, associate dean, College of Science, Literature, and the Arts and professor of physics, leave without salary, March 16 to June 30, 1954, to serve as executive secretary of the National Science Foundation's Advisory Committee on Government-University Relationships, Washington, D. C.
- H. Harvard Arnason, professor and chairman of art, continuation of leave for 20 per cent time without salary, to continue to serve as director of the Walker Art Center.
- Abe B. Baker, professor and director, division of neurology, Department of Psychiatry and Neurology, leave with salary, March 1 to April 30, 1954, to lecture at the University of Oslo and the University of Bergen, Norway.
- Charles R. Burnham, professor of agronomy and plant genetics, leave with salary August 17-30, 1953, to attend the Ninth International Genetics Congress in Bellagio, Italy.
- Robert H. Cameron, professor of mathematics, sabbatical furlough for 1953-54, to study and do mathematical research at the Institute for Advanced Study at Princeton, New Jersey.
- Asher N. Christensen, professor of political science, leave with salary, January 1 to February 6, 1954, to accept invitation to become a member of the faculty of the Salzburg Seminar on American Studies in Austria.
- William H. Dankers, professor-extension economist in marketing, Agricultural Extension Service, leave without salary, October 1, 1953 to January 15, 1954, to accept a U.S. Department of State assignment in Germany.
- Edward W. Davis, professor, Mines Experiment Station, continuation of leave for 10 per cent time without salary for 1953-54, to continue work on the taconite development program at Babbitt, Minnesota.
- Ernst R. G. Eckert, professor of mechanical engineering, leave with salary, November 30 to December 9, 1953, for attendance and presentation of a technical paper at ASME national meeting and to lecture at the University of Karlsruhe, Germany.
- Ruth E. Eckert, professor, College of Education, leave with salary, May 1-31, 1954, on account of illness.

- Richard M. Elliott, professor of psychology, sabbatical furlough for the spring quarter of 1953-54, for professional reading, visiting Eastern universities, and attending several regional meetings of various psychological associations.
- Gerald T. Evans, director of hospital laboratories and professor of medicine, sabbatical furlough from December 16, 1953 to June 15, 1954, to do clinico-biochemical research at Naval Medical Research Unit, American Embassy, Cairo, Egypt.
- George Filipetti, professor, School of Business Administration, leave with salary, October 13, 1953 to March 15, 1954, on account of illness.
- James E. Gerald, professor, School of Journalism, sabbatical furlough for 1953-54, for study and travel in United States, United Kingdom, and Europe.
- David Glick, professor of physiological chemistry, leave with salary, March 8 to April 9, 1954, to lecture at the Caroline Institute in Stockholm, Sweden and the Carlsberg Laboratories in Copenhagen, Denmark.
- Raymond L. Grismer, professor of Romance languages, sabbatical furlough for 1953-54, for further study in preparation of an edition of Juan Manuel's *Cronica abreviada* at Madrid, Spain.
- Louis S. Heilig, professor, School of Mines and Metallurgy, leave with salary, January 1-28, 1954, on account of illness.
- Frank H. Kaufert, professor and director, School of Forestry, sabbatical furlough, November 1, 1953 to April 30, 1954, to conduct a survey of forestry research in Canada, United States, and Mexico under the auspices of the Rockefeller Foundation and the Society of American Foresters.
- Izaak M. Kolthoff, professor and chief of analytical chemistry, leave with salary, April 1-15, 1954, to attend and contribute a paper at the Faraday Society meeting in Birmingham, England.
- August C. Krey, professor of history, leave with salary, January 1 to February 28, 1954, on account of ill health.
- Robert Livingston, professor of physical chemistry, sabbatical furlough continued for fall and winter quarters of 1953-54.
- William J. Micheels, professor of trade and industrial education, sabbatical furlough for the winter quarter of 1953-54, for individual study and writing in the area of teacher education, time to be spent in Texas and Florida.
- William E. Morris, professor-extension animal husbandman, Agricultural Extension Service, leave with salary April 5 to May 29, 1954, for rest and recuperation.
- Will M. Myers, professor and head of agronomy and plant genetics, leave with salary, August 17-30, 1953, to attend the Ninth International Genetics Congress in Bellagio, Italy.
- Edgar L. Piret, professor of chemical engineering, leave without salary, May 1 to June 15, 1954, to give a series of lectures at Royal Society of England, of Holland, the Svenska Technologforeningen of Sweden, the University of Paris, and the University of Nancy.
- Orrin W. Potter, professor of drawing and descriptive geometry, sabbatical furlough for 1953-54, for study and research in the field of graphics.
- Harold S. Quigley, professor of political science, 16 per cent time leave with salary for 1953-54 from disability income on account of illness.
- Delmer J. Rodabaugh, assistant professor of rhetoric, leave without salary for the winter and spring quarters of 1953-54, to complete work on a textbook.
- James J. Ryan, professor of mechanical engineering, leave without salary for 40 per cent time, for 1953-54, to continue research work in Aeronautical Research Laboratories of General Mills, Inc.
- Thorvald Schantz-Hansen, professor and director, Lake Itasca Forestry and Biological Station, leave with salary, July 13 to October 13, 1953, on account of illness.
- Dorothy Simmons, professor-state leader of extension home program, associate home economist, Agricultural Extension Service, leave without salary, March 8-20, 1954, for vacation.
- Fred Smith, professor of agricultural biochemistry, leave with salary, September 1-14, 1953, to give a series of seminars in carbohydrate chemistry to the Research School, University of Birmingham, England.

- Arthur E. Stoppel, professor of chemical engineering, leave without salary, May 1-31, 1954, to conduct refresher courses in basic chemical engineering unit operations for technical employees of the Lago Oil and Transport Company Limited, Aruba, Netherlands West Indies.
- Louise A. Stedman, director and professor, School of Home Economics, leave with salary, August 10-22, 1953, to attend the International Home Economics meeting in Edinburgh, Scotland.
- H. Burr Steinbach, professor of zoology, leave without salary for 1953-54, to direct program for biology and medicine of the National Science Foundation.
- Allen Tate, professor of English, leave without salary for 1953-54, to accept appointment as visiting lecturer at the University of Rome on a Fulbright grant.
- Richard L. Varco, professor of surgery, to continue leave without salary for 20 per cent time for service at Veterans Hospital.
- George B. Vold, professor of sociology, sabbatical furlough for the spring quarter of 1953-54, for travel in Europe and for personal observation and study of changes now taking place in the ideology and in the practices of European penology.
- Stefan E. Warschawski, professor and head of mathematics, Institute of Technology, leave with salary, October 16 to March 15, 1954, on account of illness.
- Joseph T. Anderson, associate professor, Laboratory of Physiological Hygiene, continuation of leave without salary for 10 per cent time for 1953-54, to work for the State of Minnesota Mental Health Authority, in a cooperative research project at Hastings.
- Lyda C. Belthuis, associate professor of geography, Duluth Branch, sabbatical furlough for 1953-54, for travel to Australia to study present and proposed irrigation developments along the Murray and Murrumbidgee rivers of New South Wales and Victoria, and also to visit Great Britain, India, Japan, and New Zealand.
- Berry Campbell, associate professor of anatomy, sabbatical furlough for 1953-54, to be spent at University College, London, to study several particular approaches to the analysis of the cerebral cortex.
- Kenneth E. Clark, associate professor of psychology, leave without salary for 50 per cent time for 1953-54, to serve as chairman of a special committee appointed by the American Psychological Association and subsidized under the auspices of the National Science Foundation, to make a study of the status of psychological personnel and training over the country as a whole.
- Donald W. Cowan, associate professor and assistant director, Students' Health Service, 50 per cent time leave without salary, July 15 to September 15, 1953, to serve as an exchange doctor with Queens University in Belfast, Ireland.
- Gertrude Esteros, associate professor, School of Home Economics, sabbatical furlough for 1953-54, to do advanced study in art education at Teachers College, Columbia University, with particular emphasis on ways of improving the art program for home economics students.
- Albert W. Frenkel, associate professor of botany, sabbatical furlough for 1953-54, to study research programs in fields of physiology and biochemistry.
- Paul L. Holmer, associate professor of philosophy, sabbatical furlough for 1953-54, for historical research necessary for the completion of a book on the epistemological and logical components in Kierkegaard's thought, at the University of Copenhagen, Denmark.
- Fred L. Kildow, associate professor, School of Journalism, leave without salary, for 1953-54, to engage in independent reading, organize course materials, observe photographic and photo editing methods of *Life* magazine, and to further develop the work of the National Scholastic Press Association and the Associated Collegiate Press.
- Joseph Kwiat, associate professor of general studies, leave without salary for 1953-54, to accept a Fulbright Lectureship at the University of Tubingen, Germany.

- F. John Lewis, clinical associate professor of surgery, leave without salary for 25 per cent time for 1953-54, to assume responsibility for the development of a surgical tuberculosis service at Anoka State Hospital.
- Earl A. Nelson, clinical associate professor, School of Dentistry, continuation of leave without salary for 1953-54, to develop research on dental castings.
- Elizabeth Nissen, associate professor of Romance languages, sabbatical furlough for 1953-54, to refresh study of the Italian language, and to study the contemporary theater of Italy and Greece.
- William V. O'Connor, associate professor of English, leave without salary for 1953-54, to serve as lecturer at the University of Liege, Belgium.
- Gerald B. Ownbey, associate professor of botany, sabbatical furlough for 1953-54, to accept a Guggenheim fellowship to pursue advanced studies and research in taxonomic botany.
- Ruby B. Pernell, associate professor, School of Social Work, leave without salary for 1953-54, to serve on the staff of the University of Denver.
- Emmett L. Pinnell, associate professor of agronomy and plant genetics, leave without salary, August 1, 1953 to July 31, 1954, to accept position with Mutual Security Agency on an assignment to Yugoslavia to organize and expand the corn breeding program in that country.
- Henry W. Riecken, Jr., associate professor of sociology, leave without salary, September 16, 1953 to February 14, 1954, to finish work on a research project under an Air Force contract with the Laboratory of Social Relations.
- John Rood, associate professor of art, leave without salary for spring quarter of 1953-54, to complete some architectural sculptural projects.
- Paul C. Rosenbloom, associate professor of mathematics and mechanics, leave without salary for 1953-54, to work at the Institute for Advanced Study at Princeton, New Jersey.
- Roy A. Schuessler, associate professor of music, sabbatical furlough for 1953-54, for study in Europe.
- Ernst Simonson, associate professor, Laboratory of Physiological Hygiene, continuation of leave for 1953-54 for 25 per cent time without salary, for collaborative work at Minneapolis Veterans Hospital and Mt. Sinai Hospital.
- Julia Bartlett, home agent-assistant professor, Houston County, Agricultural Extension Service, sabbatical furlough, October 21, 1953 to August 31, 1954, for work on Master's degree.
- Rodney A. Briggs, assistant professor-extension agronomist, Agricultural Extension Service, leave with salary, April 8-24, 1954, on account of illness.
- James F. Hammarsten, clinical assistant professor of medicine, leave without salary for 1953-54, for military service.
- John A. Johnson, assistant professor of physiology, continuation of leave without salary for 1953-54, for study on a National Science Foundation Fellowship at the University of Copenhagen, Denmark.
- Thelma L. Johnson, assistant professor of professional education, Duluth Branch, sabbatical furlough for 1953-54, for study toward Doctor's degree at Stanford University.
- Ruth E. Lawrence, director, University Art Gallery and assistant professor of art, sabbatical furlough, January 1 to December 31, 1954, to accept a Hill Foundation grant to pursue further ceramic research for a book on ceramics.
- Robert E. Luckey, assistant professor of Romance languages, continuation of leave without salary for 1953-54, on account of illness.
- John H. Mabry, assistant professor of social studies, Duluth Branch, leave without salary for 1953-54, to accept a research fellowship at Yale University.
- Richard M. Magraw, assistant professor of psychiatry and neurology, leave without salary for 1953-54, for military service.
- Gerald R. McKay, assistant professor-extension specialist in visual education, Agricultural Extension Service, continuation of leave without salary, January 1 to April 17, 1954, for assignment with Mutual Security Agency in Europe.
- Howard A. Morris, assistant professor of dairy husbandry, leave with salary, July 12-26, 1953, for annual military training.

- Malcolm Myers, assistant professor of art, leave without salary for 1953-54, to accept a renewal of his Guggenheim grant for research in the field of graphic arts.
- Malcolm B. Stinson, associate professor, School of Social Work, continuation of 75 per cent time leave without salary for 1953-54, to design a comprehensive research program for the Greater St. Paul Community Chest and Councils.
- Leonard Unger, associate professor of English, sabbatical furlough for 1953-54, to accept a Guggenheim fellowship and to study the possible use for literary interpretation and literary theory of terms and concepts found in Freud's work on dreams and wit, time to be spent at Princeton, New Jersey.
- Herbert E. Wright, Jr., associate professor of geology and mineralogy, 25 per cent time leave without salary for winter quarter of 1953-54, for research and writing.
- Charles L. Beer, agricultural agent-assistant professor, Anoka County, Agricultural Extension Service, leave without salary, October 21, 1953 to June 18, 1954, for graduate work at Michigan State College.
- Donald Brieland, assistant professor, Institute of Child Welfare and General Studies, leave without salary for 1953-54, to accept an appointment at the University of Peshawar, NWFP, West Pakistan, under the Fulbright Act.
- Spencer F. Brown, assistant professor of pediatrics, leave without salary, April 1 to September 15, 1953, for military service.
- A. Elizabeth Burr, home agent-assistant professor, Hennepin County, Agricultural Extension Service, leave with salary, December 11, 1953 to January 11, 1954, on account of illness.
- Guy Desgranges, assistant professor of Romance languages, leave without salary for 1953-54, on account of illness in his family.
- Louise T. Dossdall, assistant professor of plant pathology and botany, leave with salary, January 18 to March 31, 1954, on account of illness.
- Kathleen S. Flom, assistant professor-assistant state leader, 4-H Club rural youth, Agricultural Extension Service, leave without salary, March 1 to June 30, 1954, to take over the work of the International Foreign Youth Exchange director while he is in Europe at the National 4-H Club Foundation, Washington, D.C.
- John J. McCann, West St. Louis County agricultural agent-assistant professor, Agricultural Extension Service, leave with salary, July 13 to August 3, 1953, on account of illness.
- Evar D. Nering, assistant professor of mathematics, leave without salary for 1953-54, to serve as mathematician with the basic physical research department of the Goodyear Aircraft Corporation at Litchfield Park, Arizona, on work for the U.S. Air Force.
- Judith C. Nord, home agent-assistant professor, West Otter Tail County, Agricultural Extension Service, leave without salary, November 1, 1953 to April 30, 1954, on account of illness in her family.
- Stanley F. Paulson, assistant professor of general studies, leave without salary for 1953-54, to serve with the Armed Forces Education Program in Europe.
- Isaac Rosenfeld, assistant professor of general studies, leave without salary for winter quarter of 1953-54, to accept an appointment as a member of the faculty of the Salzburg Seminar in Austria.
- Stanley Schachter, assistant professor of psychology, continuation of leave without salary for the fall quarter of 1953-54, to accept a Fulbright Fellowship to direct the group experimentation program of the Committee on Research and Intergroup Relations and to serve as professor of psychology at the University of Amsterdam.
- Dorothy D. Smith, assistant professor of education, Duluth Branch, leave without salary for the fall quarter of 1953-54, to continue to serve as specialist in elementary education with Institute of Inter-American Affairs in Quito, Ecuador, South America.
- Flora M. Staple, assistant professor of education, Duluth Branch, sabbatical furlough for 1953-54, to work toward Doctor's degree at University of Denver.

- Donald C. Swanson, assistant professor of classics, sabbatical furlough for 1953-54, to visit the major archeological sites in Italy and Greece for linguistic and philological study.
- Niels Thorpe, assistant professor of physical education and athletics, sabbatical furlough from September 16 to December 31, 1953, to travel in Europe and investigate physical education and recreation in the Scandinavian countries.
- Fae Y. Tichy, assistant professor of psychiatry and neurology, continuation of leave for 9 per cent time leave without salary for 1953-54, to assist at Anoka State Hospital.
- Franz Vitovec, assistant professor of mathematics and materials, leave without salary, September 16, 1953 to January 11, 1954, to return to Vienna to establish permanent visa status.
- Dwain W. Warner, assistant professor of zoology, sabbatical furlough for 1953-54, for field study of the biology and ecology of rodents of New Caledonia.
- Doris Y. Wyman, assistant professor-district supervisor of home agent work, Agricultural Extension Service, leave without salary, February 23-27, 1954, for additional vacation.

## DEATHS

With deep regret and a profound sense of personal loss the following deaths are recorded during the biennium:

- Archibald H. Beard, clinical associate professor of medicine, August 14, 1952.
- Richard E. Scammon, distinguished professor emeritus, Graduate School, September 12, 1952.
- Amey E. Armstrong, assistant professor emeritus of English, November 10, 1952.
- William L. Jenkins, clinical instructor in psychiatry and neurology, January 1, 1953.
- Marshall C. Hervey, associate professor of dairy husbandry, January 25, 1953.
- John S. Macnie, associate professor emeritus of ophthalmology and otolaryngology, January 30, 1953.
- Albert Anderson, instructor emeritus, West Central School and Station, March 31, 1953.
- Charles K. Maytum, associate professor of medicine, Mayo Foundation, April 10, 1953.
- William F. Lasby, dean and professor emeritus, School of Dentistry, April 12, 1953.
- William A. Peters, district supervisor of county agent work and assistant professor, Agricultural Extension Service, May 3, 1953.
- Frederic H. Bass, professor emeritus of civil engineering, May 13, 1953.
- James M. Walls, professor emeritus, School of Dentistry, June 4, 1953.
- Albert E. Jenks, professor emeritus of anthropology, June 6, 1953.
- Harry W. Christianson, associate professor of surgery, June 11, 1953.
- Robert E. Luckey, assistant professor of Romance languages, June 22, 1953.
- John W. Powell, lecturer emeritus of literature, General Extension Division, August 3, 1953.
- Clyde Stephens, associate professor of music, August 4, 1953.
- James W. McConkie, assistant professor of music, August 21, 1953.
- Myron O. Henry, clinical assistant professor of orthopedic surgery, August 31, 1953.
- Harlow C. Richardson, assistant professor emeritus of English, September 11, 1953.
- Iver J. Nygard, associate professor of soils, September 30, 1953.
- Lee W. Barry, clinical assistant professor of obstetrics and gynecology, December 3, 1953.
- Philip F. Donohue, clinical instructor of surgery, December 17, 1953.
- Louis S. Heilig, professor, School of Mines and Metallurgy, January 28, 1954.
- Avery D. Prangen, associate professor of ophthalmology, Mayo Foundation, January 30, 1954.
- Edward M. Freeman, dean and professor emeritus, College of Agriculture, Forestry, and Home Economics, February 5, 1954.
- Albert Miller, instructor emeritus of radiology, Mayo Foundation, February 7, 1954.

Roderick W. Siler, associate professor emeritus of mathematics and mechanics, Institute of Technology, March 11, 1954.

George H. Fairclough, assistant professor emeritus of music, March 27, 1954.

Anton G. Wethall, clinical assistant professor emeritus of surgery, April 4, 1954.

Archa E. Wilcox, clinical associate professor emeritus of surgery, April 6, 1954.

Lewis E. Longley, assistant professor emeritus of horticulture, May 2, 1954.

Charles A. Savage, professor emeritus of Latin and Greek, May 7, 1954.

### HONORS AND DISTINCTIONS

**Administration**—James Lewis Morrill served as chairman, U. S. Advisory Commission on Educational Exchange, U. S. Department of State, 1952-54; and chairman, Committee on Relationships of Higher Education to the Federal Government, American Council on Education, 1952-53. For the Association of Land-Grant Colleges and Universities, he served as chairman, Executive Committee, Subcommittee on the Book about Land-Grant Institutions, 1952-53; member, Senate Special Committee on Federal Legislation, 1952-53; member, Council of Presidents, 1952-54; member, Committee on Relationships with the National Association of State Universities, 1952-53; chairman, Committee on National Defense, 1952-54; and member, Committee on Survey of Land-Grant Institutions, 1954. For the National Association of State Universities, he was chairman, Special Committee on the Union of the National Association of State Universities and the Association of Land-Grant Colleges and Universities, 1953; and was named vice president, Association of American Universities, 1952-54. He served as member, Advisory Council, 1953, and member, Subcommittee of the Advisory Council to Study a Selected Group of Medical Schools, 1953, National Fund for Medical Education; and continued as member, Editorial Board, *Journal of Higher Education*, 1952-54; member, College of Electors, Hall of Fame, New York University, 1952-54; member, Ford Motor Company Fund Scholarship Board, 1952-54; the Committee on the Present Danger, 1952-54; the Council of Ten (University Presidents), 1952-54; the Honorary Council, Ohioana Library Association, 1952-54; the Executive Committee of the Executive Council, Minnesota Historical Society, 1952-54; the Board of Trustees, the Minneapolis Foundation, 1952-54; the Board of Trustees, Ames Library of South Asia, 1952-54; the Board of Trustees, Minnesota Community Research Council, Inc., 1952-54. He was named president, Fourth National Conference on Health in Colleges, May, 1954; member, Committee on Professional Education, Commission on Colleges and Universities of North Central Association of Colleges and Secondary Schools, 1953-54; member, Board of Trustees, Eisenhower Exchange Fellowships, Inc., 1953-54. He is an honorary member, American Alumni Council, 1952-54; and honorary member, National Council, Boy Scouts of America, 1954.

**Alumni Relations**—Edwin L. Haislet served as member, Hennepin County Tax Board, 1953; member, Minneapolis Planning Commission, 1953; member, Juvenile Detention Committee, and chairman, Subcommittee on Building Plans, Minneapolis Community Welfare Council, 1954; member, United States Olympic Committee, 1953-54; member, National Advisory Committee on Recruitment, Training, and Placement of Recreation Personnel, National Recreation Association, 1953-54; president, Minneapolis Park Board Commission, 1953-54; state co-chairman, Crusade for Freedom, 1954.

**Academic Administration**—Malcolm M. Willey served as director, 1952-54, member, Committee on Problems and Policy, 1952-54; member, Committee on Faculty Research Fellowships, Social Science Research Council, 1952-54; member, Commission on Human Resources, Associated Research Councils, 1952-54; member, Scientific Advisory Committee on Specialized Personnel, National Selective Service System, 1952; member, Committee on UNESCO Program and member, U. S. National Commission on UNESCO, 1953-54; member, Board of Directors, Midwest Interlibrary Corporation, 1954; member, Board of Directors, Walker Art Center, 1952-54; and contributing editor, *Long Island Forum*. He was awarded the honorary LL.D. degree by the University of Maine in August 1952.

*Office of Admissions and Records*—True E. Pettengill served as chairman, 1953, General Convention Committee, and member, Program Committee, chairman, Committee on College Catalogues, chairman, Resolutions Committee, and Meeting Group Leader, 1953-54, American Association of Collegiate Registrars and Admissions Officers.

Robert E. Summers served as chairman, Committee on Enrollment Trends, American Association of Collegiate Registrars, 1952-53; and as resource person on Student Admission and Recruitment Policies, National Conference on Higher Education, 1952.

*Office of the Dean of Students*—Barbara P. Aalto served as secretary, Minnesota chapter, Psi Chi, 1953-54.

Henry E. Allen was member, Governor's Advisory Council on Children and Youth, and chairman, Committee on Religious Values, 1952-54; member, Board of Directors, Minnesota Council on Family Life, 1952-54; member, Executive Committee, Minneapolis Round Table of Christians and Jews, 1952-54; member, Committee on Campus Inter-religious Activities of the Commission on Religious Organizations, National Conference of Christians and Jews, 1953-54; member, Board of Directors, Greater Minneapolis Council of Churches, 1952-54; member, Twin Cities Organizing Committee, Religious Education Association, 1954; and member, Board of Directors, Minnesota Branch, Civil Liberties Union, 1952-54.

Kermit O. Almos served as member, National Committee on Veterans Affairs, National Education Association, 1953-54.

Ralph F. Berdie was member, Education and Training Board, 1952-53, chairman, Committee on Subdoctoral Education, 1952-53, member, Committee on Subdoctoral Education, 1953-54, chairman, Committee on Inservice Training of Division 17, 1952-53, and chairman, Counselor Training Committee of Division 17, American Psychological Association; consultant in counseling psychology, U. S. Veterans Administration, 1953-54; member, Advisory Committee, Testscor, 1953-54. He was awarded a research grant from National Science Foundation, 1954, to study loss of talent through education drop-out at high school graduation.

B. James Borreson served as member, Commission III, National Association of Student Personnel Administrators, 1952-54; member, Committee on Student Eligibility Requirements for Participation in Co-Curricular Activities, American College Personnel Association, 1952-54.

Alice M. Christian served as secretary-treasurer, 1953-54, and member, Board of Trustees, 1952-54, Minneapolis Vocational Guidance Association; member, Legislative Committee, 1952-53, and member, Public Relations Committee, 1953-54, Minnesota Rehabilitation Association; and member, Arrangements Committee, Annual Conference, Minnesota Psychological Association, 1954. She was awarded a fellowship for specialized training, sponsored by Alpha Gamma Delta and National Society for Crippled Children and Adults, held at Bellevue-New York University Medical Center, Institute of Physical Medicine and Rehabilitation, 1953.

Francis C. Gamelin served as mental hygiene chairman, Minnesota Congress of Parent-Teacher Associations, 1953-54; president, District 24, Inter-school Council Parent-Teacher Association, 1953-54; president, Robbinsdale High School Parent-Teacher Association, 1953-54; president, Adair Elementary School Parent-Teacher Association, 1952-53; member, "Family Life Leaders" Committee, Minnesota Family Life Association, 1953-54; and member, Publicity Committee, Minnesota Psychological Association, 1954. He was lay director, Northern Hennepin County, Lutheran Augustana Synod Missions In-gathering, 1953-54; and was elected member, Robbinsdale School Board, 1954.

Theda Hagenah was appointed to the Executive Board, Minnesota Psychological Association, 1954.

Ernest H. Henrikson was elected executive vice president, 1952-54, re-appointed chairman, Committee on Liaison and Committee on Time and Place, 1953, and reappointed member, Committee on Committees, 1953, American Speech and Hearing Association.

Vivian H. Hewer was elected vice president, 1952-53, and president, 1953-54, Minneapolis Vocational Guidance Association. She served as consultant,

Counseling Division, Regional National Education Association Convention, 1954.

Donald P. Hoyt was awarded a research grant (with Thomas Magoon), from the Louis W. and Maud Hill Family Foundation to study Systematic Theorizing in Casework, Counseling, and Psychotherapy, 1952-54.

John M. Huebner served as member, Minneapolis Citizens' Committee on Public Housing, 1952-53; and was elected member, Minnesota Democratic-Farmer-Labor Central Committee, 1954.

Wilbur L. Layton was regional correspondent, Division 17, American Psychological Association *News Letter*, 1952-54; and program chairman, Minnesota Psychological Association conference on psychotherapy, 1954.

Dale J. Lundeen served as member, Executive Council, Minnesota Speech and Hearing Therapists Association, 1953.

Thomas M. Magoon was awarded a research grant (with Donald P. Hoyt), from the Louis W. and Maud Hill Family Foundation to study Systematic Theorizing in Casework, Counseling, and Psychotherapy, 1952-54.

Mabelle G. McCullough served as member, Advisory Board, 1952-54, and chairman, Personnel Committee, 1953-54, University YWCA; co-chairman, Fifth National Convention, National Association of University and College Housing Officers, 1953; member, Sub-committee on Housing, Citizens' Committee for Equal Opportunity (Minneapolis), 1953-54; and was delegate to the Group Work and Recreation Division, Minneapolis Community Chest, 1953-54.

Josef Mestenhauer served as member, Executive Committee, Twin-City International Center for Students and Visitors, 1953-54. He was recipient of the All-University Congress Staff Award, 1953.

Forrest G. Moore served as member, Board of Directors, National Association of Foreign Student Advisers, 1952-54; member, Commission on International Understanding and World Peace of the Minneapolis Public Schools, 1952-54; member, Committee on International Education, 1953-54, and member, Membership Committee, 1952-54, American College Personnel Association; member, Advisory Committee on Undergraduate Studies, Institute of International Education, 1952-54; and as member, Board of Management, University YMCA, 1953-54.

Carl B. Nelson served on scholarship awards committee, Minneapolis Junior Achievement, 1954; and on scholarship awards committee, Sears-Roebuck and Company, Minneapolis, 1954.

Gerhard Neubeck was named treasurer, 1953-54, and member, Executive Board, 1953-54, Minnesota Council on Family Life; and was leader, Family Life Workshop, St. Paul Board of Education, 1954.

Dorothy Nicholas served as consultant, Minneapolis Public Schools in-service training program.

Paul H. Ptacek was elected to membership in Sigma Xi, 1952; and received "Advanced Standing" rating in speech area by American Speech and Hearing Association, 1954.

George B. Risty served as scholarship consultant, Tozer Foundation, Inc., Stillwater, Minnesota, 1953-54; member, Scholarship Awards Committee, Sears-Roebuck and Company, Minneapolis, 1953; and member, Scholarship Awards Committee, Minneapolis Junior Achievement, 1953.

Ruth Roberts served as member, 1952-54, secretary, 1952-53, and member, Personnel Committee, 1953-54, University YWCA Board.

Martin L. Snoke served as member, Minnesota State Selection Committee for NROTC Candidates, 1953; and was appointed secretary, Joint Committee on High School and College Relations, Association of Minnesota Colleges and Minnesota Secondary School Principals Association, 1953-54.

Leverne F. Snoxell was elected to Psi Chi, national honorary psychological fraternity, University of Minnesota Chapter, 1954.

Margaret N. Space was elected treasurer, Epsilon Chapter, Pi Lambda Theta, national honor organization for women in education, 1954.

Harold P. Strom served as member, Executive Board, Boy Scouts of America, 1952-54; and member, Ramsey County Community Chest, 1952-54.

Benjamin Willerman was awarded a research grant from the National Institute of Mental Health, U. S. Public Health Service, to study "The security of individuals in groups," and a research contract from the Office of

Naval Research to study "Cohesive and Disruptive Factors in Coalition Groups," 1952-54.

Edmund G. Williamson served as member, Commission on Student Personnel, 1952-54, and chairman, Committee on Japanese University Counseling Project, 1952-54, American Council on Education; chairman, Advisory Committee on Counseling Service for Vocational Rehabilitation and Education, Veterans Administration, 1952-54; and member, Editorial Board, *Journal of Educational and Psychological Measurement*, 1952-54. He received (with Donald Hoyt) research award from American Personnel and Guidance Association for the study, "Measured Personality Characteristics of Student Leaders," 1953; was elected vice president, National Association of Student Personnel Administrators, 1953-54; appointed consulting editor, *Journal of Counseling Psychology*, 1953; and was elected to Advisory Council, United States National Student Association, 1954.

*University of Minnesota Press*—Helen Clapesattle was elected honorary member, Theta Sigma Phi, national fraternity for women in journalism, 1954; and received a Hamline University Centennial Citation as one of the outstanding "Women of Minnesota," 1954. She served as member, Executive Committee, Association of American University Presses, 1952-53.

*University Libraries*—Rose Grunwald was elected to membership in Lambda Alpha Psi (honor society), 1953.

Ralph H. Hopp was elected vice president and president-elect, Twin City Library Club.

Warren J. Kliever was elected to membership in Phi Beta Kappa, 1954.

Wesley C. Simonton was recipient of fellowship to the Graduate School, University of Illinois, 1952-53.

Edward B. Stanford was elected vice chairman and chairman-elect, University Libraries Section, Association of College and Reference Libraries, American Library Association. He was elected to membership in the Grolier Club (New York City) and the Ampersand Club (Minneapolis) (membership honorary and selective).

David R. Watkins was elected first vice president and president-elect, Minnesota Library Association; served as member of Council, American Library Association; and state representative for Minnesota, Association of College and Reference Libraries.

*Department of Concerts and Lectures*—Harold J. Alford served as chairman, Touring Theatre Project; head of investigation, "Bringing Theatre to Broader Social Groups in the Community," Adult Education Project, and chairman, Investigating Committee on Touring British Ballet Exhibit, American Educational Theatre Association, 1952-54.

James S. Lombard served as head of youth work, and was originator and organizer, United Nations Pilgrimage for Youth, Independent Order of Odd Fellows, 1952-53; member, Board of Directors, member, Executive Committee, and co-chairman, Opera Selection Committee, St. Paul Civic Opera, 1953-54. He was guest, Foreign Ministries of Norway, Sweden, Denmark, and Finland from May 18 to June 2, 1954, for the purpose of attending and studying the Music Festivals held in those countries.

Theodore E. Stall served as secretary-treasurer, National School Assembly Managers' Association.

*Museum of Natural History*—Walter J. Breckenridge served as president, Wilson Ornithological Club, 1952-54.

*Students' Health Service*—Ruth E. Boynton was reappointed member, State Board of Health, 1954; and member, Executive Committee, American College Health Association, 1953-54. She was recipient of Hamline University Centennial Citation, "Women of Minnesota," 1954.

Donald W. Cowan served as exchange medical officer to Queen's University, Belfast, Ireland, June-August 1953; and was elected president, North Central Section, American College Health Association, 1952-53.

George S. Michaelsen served as secretary, Board of Trustees, Augsburg College and Theological Seminary (Minneapolis); and as secretary, Board of Directors, Lutheran Deaconess Hospital (Minneapolis).

*Coffman Memorial Union*—Gordon L. Starr was named regional adviser, Association of College Unions, 1952-53.

*Department of University Relations*—William L. Nunn served as member, Board of Directors, Family and Children's Service of Minneapolis; member, Board of Directors, Navy League of Minnesota; member, Board of Directors, Public Relations Committee of Minneapolis YMCA; and mayor, Village of Champlin, Minnesota.

*Bureau of Institutional Research*—Robert J. Keller served as president, Minnesota Association of Colleges, 1952-53; member, Board, Westminster Foundation, 1952-54; member, Board, Minnesota Society for the Study of Education, 1952-53; as research consultant, Human Resources Research Center, U. S. Air Force, 1952-54; and as examinations consultant, Minnesota State Board of Basic Science Examiners, 1953-54.

**Business Administration**—Hedwin C. Anderson was named president, 1952-53, and member, Board of Directors, 1953-54, College and University Personnel Association.

Ray F. Archer served as member, Health, Hospitals, and Welfare Committee, Citizens League of Greater Minneapolis, 1952-54; and member, Subcommittee on Campus Safety, School and College Division, National Safety Congress, 1952-53.

Clarence E. Larson was member, College Fact Finding Committee, United Lutheran Church of America (Northwest Synod), 1952-54.

Laurence R. Lunden served as chairman, Committee on Taxation and Fiscal Reporting, 1952-54, and member, Committee on Institutional Research Policy, 1953-54, American Council on Education; chairman, Joint Committee of Business Officers, representing the Association of Land-Grant Colleges and Universities and National Association of State Universities, 1952-54; member, Board of Directors, 1952-54, and vice president, 1954, National Federation of Associations of College and University Business Officers; member, Committee on Legislation, Association of Land-Grant Colleges and Universities, 1952-54; first vice president, Hennepin County Tuberculosis Association, 1952-54; president, Central Association of College and University Business Officers, 1952; secretary, Midwestern Universities Research Association, 1954; editorial consultant, *College and University Business*, 1952-54; director, Velie-Ryan Incorporated (University of Minnesota part owner), 1953-54; and vice president, Otter Creek Coal Company (University of Minnesota part owner), 1953-54.

William T. Middlebrook was chairman, General and Steering Committees, California-Big Ten Cost and Statistical Study, 1952-54; member, Board of Directors, and member, Executive Committee, Midwest Inter-Library Corporation, 1952-53; member, Editorial Committee, National Committee on the Preparation of a Manual on College and University Business Administration, Volume II, 1952-54; member, ad hoc Advisory Committee on Contractual Procedures Covering Relationships with Educational Institutions, Research and Development Board, Department of Defense; member, Research Corporation Steering Committee on Inventions, Atomic Pioneers, Incorporated, 1952-54; chairman, Standing Committee on Relations with the Federal Government, and representative of the Central Association of College and University Business Officers on Committee on Pilot Cost Analysis Study, National Federation of College and University Business Officers, 1952-54; member, Committee on Contract Relations with the Federal Government, Engineering College Research Council, American Society for Engineering Education; and president, Otter Creek Coal Company (University of Minnesota part owner).

Frank F. Pieper was named program chairman, Twin City Industrial Training Discussion Group, 1953-54.

Clarence A. Smith was member, Educational Board, Twin City Association of Purchasing Agents, 1953-54; and member, Board, State Employees' Retirement Association of Minnesota, 1953-54.

**College of Science, Literature, and the Arts**—Ernst C. Abbe served as president 1952-53, council member, 1953-54, and chairman, Scholarship Committee, 1953-54, Minnesota Academy of Science; as member, Cedar Creek Committee, 1952-54; and as member, Nominating Committee, 1953, Sigma Xi. He was awarded a National Science Foundation research grant.

James Aliferis was the recipient of a research grant, Fund for the Advancement of Education (Ford Foundation), to study activities of choral groups and centers in the United States, 1952-53. He was appointed to the staff of the Berkshire Music Center to teach and work for the Boston Symphony Orchestra, 1952-54, and is conductor of Cecilian Singers, a professional women's chorus and a civic group.

Harold B. Allen was chairman, Conference on College Composition and Communication, 1952, and member of its nominating committee, 1953; member, Board of Directors, Committee on Current English Usage, and the Curriculum Commission, National Council of Teachers of English, 1952-54; member, Editorial Advisory Committee for *College English*, 1953-54; and represented the Linguistic Society of America at the UNESCO meeting in Minneapolis, September 1953.

Robert J. Ames received a Ford Fellowship for advanced study of the Italian Renaissance, 1954.

John A. Anderson was awarded a first prize in oil paintings, Minnesota State Fair, 1953; and exhibited a painting in the Twin City Local Artists Exhibition at Minneapolis Institute of Arts, May 2-30, 1954 (purchased by The Minneapolis Institute of Arts).

William Anderson was appointed by President Eisenhower as a member, Commission on Intergovernmental Relations, 1953-54.

H. Harvard Arnason was elected member, Association of Art Museum Directors. He served as adviser, Committee on Art Education, UNESCO; member, Sponsoring Committee, and chairman, panel discussion, Fourth National Convention of UNESCO, Minneapolis, September 1953; juror for art exhibition at Palm Beach, Florida, February, 1954; juror for art exhibition at Lincoln, Nebraska, March, 1954; chairman, panel discussion, American Association of Museums, Santa Barbara, California, May 1954; director, Walker Art Center, Minneapolis; and trustee, American Federation of Arts.

Bernard P. Arnest was elected treasurer, Twin Cities Chapter, and chief delegate to National Convention, Artists Equity Association.

Thomas F. Barnhart served as a consultant to the Research Committee, Minnesota Editorial Association, and to the Northwest Daily Press Association, 1952-54; was elected honorary member, Northwest Daily Press Association (the only such member elected in the 35-year history of the organization), 1954; and was advisory editor, *Scholastic Editor* and *American Press*.

Glen E. Baxter was elected to membership in Sigma Xi; and received the National Science Award, 1954.

David K. Berninghausen was invited to participate in Columbia University's Bicentennial Conference, Number IV, and served on the Academic Freedom Committee, 1954. He was a member, Standards for Minnesota Public Libraries Committee, Minnesota Library Association, 1953-54.

Edward Berryman was named director of music and choir, Episcopal Youth Conference, Carleton College, June 1954; and instructor, Episcopal Organist-Choirmasters' Conference at Shattuck School, Faribault, June 1954. He served as consultant on organ positions in churches in the city, state, and surrounding states, 1952-54; as organ consultant and architect for First Christian Church, Mason City, Iowa, and the Portland Avenue Christian Church, Minneapolis; and as choral consultant, Episcopal Church, Bismarck, North Dakota. He was a member, Board of Directors, Twin City Choirmasters' Association.

Werner W. Boehm was named UN expert, Geneva, Switzerland, July 1952; and participated as representative of U. S. Delegation, 7th International Conference of Social Work, Toronto, Canada, June 27, 1954. He was elected member, Program Committee on Social Research and Social Studies, 1952-54; member, Program Committee on Service to Agencies and Communities, 1954, and was chairman, National Conference session, 1953, National Conference of Social Work. He served as delegate for Council on Social Work Education at meeting of UNESCO Commission held at the University of Minnesota, September 1953; and as delegate, Twin City Chapter, Delegate Assembly, American Association of Social Workers, May 1953. He was named chairman, Program Committee, 1953-54, and vice president, 1954, State Welfare Conference; was member, Executive Committee, and chairman, Committee on International Social Work, 1952-54, Twin City Chapter, American Association of

Social Workers; chairman, Membership Committee, 1953-54, University of Minnesota Chapter, American Association of University Professors; member, Executive Committee, Family and Child Care Division, 1952-54, Hennepin County Welfare Council; and member, Casework Council, and member, Casework Council Study Committee, Greater St. Paul Community Chest and Council. He served as project consultant, Louis W. and Maud Hill Family Foundation.

Cameron Booth was chosen to paint portraits of Everett Fraser, dean emeritus of the Law School, University of Minnesota, and Dr. Moses Barron, chief of staff, Mt. Sinai Hospital, Minneapolis. He received the honorary degree, doctor of humanities, from Hamline University, June 1953.

John R. Borchert was named member, Editorial Board, *Annals of the Association of American Geographers*, 1954; chairman, West Lakes Division, and member, Council, Association of American Geographers, 1952-53; consultant to Office of Quartermaster General, 1953-54; member of the Advisory Committee to the Geography Branch, Office of Naval Research, National Research Council, 1953-54; and consultant to in-service, Minnesota Education Association.

May Brodbeck was the recipient of a Ford Foundation research grant for research on Theory of Communications, 1952-54.

Jan O. M. Broek was councilor, chairman, Publications Committee, and chairman of the joint committee with the Air Force ROTC, Association of American Geographers; chairman, Workgroup A-4 (The Mobilization of Science and Technology to Improve the Living Conditions of Mankind), Fourth National Conference, U. S. National Commission for UNESCO, Minneapolis, September, 1953; and member, Editorial Board, *Tydschrift voor Economische in Sociale Geographie* (Netherlands Journal for Economic and Social Geography).

Allan H. Brown served as chairman, local chapter, and member, Executive Committee, 1952-53, American Society of Plant Physiologists; member, Editorial Board, *Plant Physiology*, 1953-54; representative of physiology section, Editorial Committee, *American Journal of Botany*, 1953-54; consultant to American Institute of Biological Sciences; and member, Advisory Committee on Biology, Office of Naval Research. He received research grants from the Office of Naval Research and the Rockefeller Foundation.

Ralph H. Brown was awarded, posthumously, second place in the Loubat Prize for his book, *Historical Geography of the United States*, 1953.

Bryng Bryngelson was elected to Editorial Board, *Midwestern Speech Association Publication*; and was elected to Leaders of American Science.

John W. Bystrom acted as consultant, Citizens League of Greater Minneapolis; consultant, Joint Labor Committee on Political Education, and as chairman, Program Committee, Citizens' Committee on Public Education.

J. William Buchta served as editor, *Reviews of Modern Physics*; executive secretary, Advisory Committee on Government-University Relationships, National Science Foundation, 1954; and member, Board of Governors, American Institute of Physics.

Robert H. Cameron was member, Institute for Advanced Study, Princeton, New Jersey, 1953-54.

Theodore Caplow served as technical adviser on relocation procedures, Minneapolis Housing and Redevelopment Authority; and member, Twin City Regional Planning Committee. He was awarded second Fulbright Lectureship to lecture on urban sociology at Utrecht, and carry on the program of research in West European ecology begun in 1950 at Bordeaux. He was invited by the Federal Housing Authority and by a committee of the National Association of Housing officials to undertake a four-year study of the human outcome of slum clearance.

Ralph D. Casey was member, American Council on Education for Journalism, 1952-54; distinguished service member, American Society of Newspaper Editors, 1952-54; representative of the Association of Land Grant Colleges and Universities on the Planning and Conference Committees, National Project in Agricultural Communications; member, Advisory Board, *Journalism Quarterly*, 1953-54; consultant, Encyclopedia Britannica Films, Inc., 1952-53; chairman, Schools of Journalism Research Committee, International Press Institute,

1952-53; and member, Informal Committee on Communications Research, Social Science Research Council.

Arnold F. Caswell served as adjudicator for Minnesota Public School Music League contests throughout Minnesota and Wisconsin, spring 1954; assistant chairman, Mid-Winter Clinic, Minnesota Music Educators' Association, 1954; and state chairman, General Music Committee, Music Educators' National Conference, January, 1954.

F. Stuart Chapin was awarded life membership in the Midwest Sociological Society.

Mitchell V. Charnley was awarded a Fulbright Fellowship for Lectureship on Journalism and Mass Communications, at the University of Florence (Italy), 1952-53.

Asher N. Christensen was invited to be member of faculty, Salzburg Seminar in American Studies, Salzburg, Austria, for summer session of 1952. He served as editor of "Government Section," *Handbook of Latin American Studies*, 1952-54; editor, 1954 Annual Supplement, and editor, for general revision, *World Book Encyclopedia* (material on Latin American Countries). He was member, Program Committee, 1954, member, Executive Council, 1952, and elected president, 1954, Mid-West Conference of Political Scientists; associate director, Minnesota Affiliate, Citizenship Clearing House; and member of commission to prepare work paper for national meeting of UNESCO Conference, 1953. He was selected by Station WOI-TV (Iowa State College) as one of 20 American professors in social science fields to prepare and record a series of lectures (on American government) for TV adult education programs, June 1953.

Kenneth E. Clark served as director, Project B, American Psychological Association, 1952-54 (supported by grant from National Science Foundation); expert consultant to the Chief of Naval Personnel, 1952-54; and director of ONR grant for measurement of interest patterns, 1952-54.

Robert Collins served as adviser on the design of an informative display, Minnesota State Income Tax Division and Minnesota Society for Crippled Children and Adults; was national director, 1952-53, Twin Cities Chapter delegate to national convention in St. Louis, 1953, and vice president, Twin Cities Chapter, 1953-54, Artists' Equity Association. He was awarded 2nd prize in painting, 24th Annual Spring Salon, Minneapolis Woman's Club, and had paintings and drawings purchased as additions to permanent collections by the Minneapolis Institute of Arts and St. Olaf College, Northfield, Minnesota.

Beulah Compton was a member, Nominating Committee, Twin City Chapter, American Association of Social Workers, 1954; Casework Committee, State Conference of Social Work, 1952-54; served as liaison officer between St. Paul Social Agencies and St. Paul Police Department, 1953-54; and consultant on case findings for St. Paul Family Unit Study, Louis W. and Maud Hill Family Foundation, 1953-54. She was selected by Indiana University at Indiana State Conference of Social Work as outstanding graduate, 1954.

Maurice F. Connery served as member, Minnesota State Governor's Advisory Committee on Clinical Facilities in Penal Institutions, 1953; chairman, Program Committee, Social Casework Section, Minnesota State Conference of Social Welfare, 1953; adviser, Ramsey County Probation Department, 1954; member, Civil Service Examining Board for Minnesota, 1953-54; committee member, Community Welfare Council of Hennepin County, 1954; and adviser, Minnesota State Mental Hygiene Follow-up Clinic, 1954.

Russell M. Cooper was awarded the honorary LL.D. degree from Cornell College, 1953. He served as chairman, Committee on Liberal Arts Education, and member, Committee on Multipurpose Institutions, North Central Association of Colleges and Secondary Schools; member, National Committee on General Education, Association for Higher Education, National Education Association, and member, Commission on Instruction and Evaluation, American Council on Education.

David Cooperman was awarded a Ford Teaching Fellowship in Political Science, 1953; and a Rockefeller Fellowship in Political Philosophy, 1954.

Charles L. Critchfield served as consultant to Los Alamos Scientific Laboratory, University of California, 1952-53; consultant to Department of Defense; member, Civilian Advisory Group on Artificial Cloud Nucleation;

and member, Executive Board, Council of Participating Institutions, Argonne National Laboratory.

James A. Cuneo was named author-editor, Spanish Series of the *Cultural Graded Readers* published by the American Book Company. He was elected first vice president, Board of Directors, and chairman, Membership Council, International Institute of St. Paul.

Orville A. Dahl served as member, Pollen Committee, American Academy of Allergy; Committee on Education, Botanical Society of America; and Membership Committee, Sigma Xi, 1952-54. He was official University representative, Nomenclature Section, and International Union of Biological Sciences, Section of Botany, at the 8th International Botanical Congress in Paris, June 28-July 1, 1954.

Harold C. Deutsch is a member, Committee on International Exchange of Persons, Washington, D. C., 1952-54.

Norman J. DeWitt served as member, Executive Committee, American Classical League; member, Managing Committee, American School of Classical Studies, Athens, Greece; president, Minnesota Chapter, Archaeological Institute of America, 1953-54; vice president and chairman, Educational Program, Educational, Musical, and Cultural Recordings Corporation. He was recipient of the annual *Variety* award for "Showmanagement" in non-commercial radio; also the First Award from the Institute for Education by Radio-Television.

Monroe D. Donsker served part time on research project with the Office of Ordnance Research; and refereed papers for the *Annals of Mathematical Statistics*.

Edward O. D. Downes was named chairman, Music Committee, The Center Arts Council, Walker Art Center, 1952-54.

Allen Downs exhibited some 250 photographs and drawings in the University of Minnesota Gallery one-man exhibitions, 1953. He was awarded a Certificate of Commendation from the Screen Directors Guild of Hollywood for the film *Art and Seeing* (with Jerome Liebling), 1953; and was author of film *Freight Stop* included in the American Film Assembly Festival, March, 1954.

Dorothy T. Dyer was member, Executive Committee, president-elect, 1953, and president, 1954, National Council on Family Relations; consultant for Family Life Education Project, American Social Hygiene Association, 1954; secretary, Minnesota Council on Family Life, 1953; and member, Board of Directors, 1953, and personnel chairman, 1954, Citizen's Club Community Center of Minneapolis.

Samuel Eddy was elected vice president, American Ecological Society, 1953-54.

Nancy A. Edes was participant in panel discussion and demonstration of elementary music education methods, Mid-Winter Music Clinic, Minnesota Music Educators' Association, 1954.

Lorenz E. A. Eitner was awarded a Fulbright Research Grant (Belgium), 1952-53.

Richard M. Elliott served as editor, Century Psychology Series, Appleton-Century-Crofts, Inc. 1952-54.

Edwin Emery was member, Editorial Critique Committee, National Conference of Editorial Writers, 1952-54; History of Journalism Committee, Association for Education in Journalism, 1952-53; National Education Committee, and director, Minnesota Chapter, Public Relations Society of America, 1952-54.

David V. Erdman was visiting lecturer in English at Duke University, 1952-53.

Herbert Feigl served as co-editor, *Philosophical Studies*, 1952-54; member, Advisory Board, *Philosophy of Science* (journal), 1952-54; member, Advisory Committee, *International Encyclopedia of Unified Science*, 1952-54; and member, Board of Trustees, Institute for the Unity of Science, Boston, 1953-54; member, Organizing Committee, Berkeley Conference for the Unity of Science, Berkeley, California, July 3-5, 1953; member, Organizing Committee, Conference on the Validation of Scientific Theories, and chairman, Symposium, joint meeting of the American Academy of Science and the Institute for the Unity of Science in Boston, December 1953.

Leon Festinger was named by *Fortune Magazine* as one of the ten top young scientists in United States universities.

Paul Fetler was recipient of a Guggenheim Fellowship in musical composition, 1953-54.

William W. Fletcher acted as program director, Minnesota Speech and Hearing Association; chairman (program organizer), Voice Science Section, Central States Speech Association Conference; and was in charge of "Psychology and Pathology of Speech" section of "In the Periodicals" department, *Quarterly Journal of Speech*.

Margaret M. Forbes was Carnegie fellow, Michigan Linguistics Workshop, Summer, 1952; and consultant to, later chairman of, Minnesota Committee on Revision of Secondary School Latin Syllabus, Minnesota State Department of Education.

Edwin H. Ford was consultant, Minnesota Historical Society, 1954.

Roy G. Francis was named fellow, Social Science Research Council, 1952-53; and served as member, Technical Committee for regional study of migration, project N.C. 18, 1953-54.

Albert W. Frenkel was named honorary fellow in biochemistry, Harvard Medical School, January, 1954; and is the holder of a Rockefeller Foundation research agent.

Margaret Fulmer served as director, Workshop on Library Extension and Development, American Library Association, June 21-26, 1954.

Joseph G. Gall attended IX International Congress of Genetics, at Lake Como, Italy, August 1953.

Bernard R. Gelbaum participated in Project on the Theory of Games (Nonr 543 (00)), Office of Naval Research; was consultant to Lightning and Transients Research Institute; consultant to Pillsbury Mills, Inc.; and reviewer for *Mathematical Reviews*.

Earl R. George served as adjudicator, Young Composers' Contest, for National Federation of Music Clubs, 1953-54; for Illinois Federation of Music Clubs, 1952-53; and for Minneapolis Public Schools, 1952-53. He was chairman, Minnesota Theory-Composition Section, Music Teachers' National Association; held a University of Minnesota Summer Session Symphony Orchestra commission: "A Currier and Ives Set," 1953; and had original musical compositions performed by various individuals and groups throughout the nation, 1952-54.

J. Edward Gerald was awarded a Fellowship, John Simon Guggenheim Memorial Foundation, for study and research in Great Britain, 1953-54. He was named consultant, Institute of Newspaper Comptrollers and Finance Officers, 1952-54.

Gladys Gibbens served on Committee of the Minnesota Section, Mathematical Association of America, 1954.

Howard Gilkinson was engaged in experimental work for the Navy (with Donald Sikkink), 1953.

Samuel S. Goldich was awarded a research grant from The Geological Society of America in support of the Rock Analysis Laboratory.

Kenneth L. Graham served as member, Executive Board, 1953-54, and chairman, Children's Theatre Conference, 1953-54, American Educational Theatre Association. He supervised a program of creative dramatics in four Twin City grade schools and conducted a two-week short course in creative dramatics for the Recreation Department, Washington, D. C., starting June 14, 1954.

John W. Gruner served as president, local chapter of Sigma Xi (honorary scientific society), 1953; and chairman, Committee on Awarding of Medals, Mineralogical Society of America.

Richard G. Guilford was a member, Institutes and Camps Committee, Minnesota State Governor's Advisory Committee on Youth, 1954; Program Committee, Child Welfare League of America, National Conference of Social Work, 1953-54; Program Committee, Central States Regional Conference, American Public Welfare Association, 1954; member, Board, Community Welfare Council of Hennepin County, 1954; member, Committee on Community Resources for Juvenile Delinquency, Council of Social Agencies of Greater Minneapolis, 1954; member, Maternity Hospital Study Committee, Community Welfare Council of Hennepin County, Health and Medical Care

Division, 1954; chairman, Twin City Chapter, American Association of Social Workers, 1952-53; adviser, Minnesota Conference on Child Caring Agencies and Institutions, 1952-54; and member, Civil Service Examining Boards for Wisconsin and North Dakota, 1953-54.

Alrik Gustafson was awarded a Knighthood in the Royal Order of the North Star by HRH King Gustaf VI Adolf of Sweden; was elected a Fellow of Vetenskapsadademien i Lund, Sweden; and served in various committee capacities in the Scandinavian section of the Modern Language Association of America.

John W. Hall was recipient of National Science Foundation research grant, 1952-54. He served as editor, *Proceedings of the Minnesota Academy of Science*, 1954.

Agnes Hansen was elected president, Xi chapter, Sigma Delta Epsilon, 1953-54.

Maurine M. Hansen served as committee member, Minnesota Council on Family Life.

C. Irene Hayner was elected to the Council of the American Library Association by the Association of American Library Schools, 1954.

Herbert Heaton was member, Council of the American Historical Association, 1953-54; member, Council of the Economic History Society, 1952-54; and secretary, Committee on Research in Economic History, 1952-54.

Paul L. Holmer was awarded a Fulbright Research Fellowship for a study (in Denmark) of the philosophy of Soren Kierkegaard, 1953.

Theodore Hornberger was visiting professor of North American Literature, National Faculty of Philosophy, University of Brazil, March-December 1952; and served as lecturer, Instituto Brasil-Estados Unidos, October-November 1952.

John Hospers was awarded a Fulbright Research Fellowship for a study (in England) of the implications of psychoanalysis for ethical theory, 1954.

William S. Howell was speech adviser, Minnesota State High School League; represented the State of Minnesota at the National University Extension Association debate and discussion meetings at New York City; served as critic judge of Minnesota high school speech activities and as chairman, Committee on Intercollegiate Discussion and Debate, Speech Association of America.

Gertrude Hull was adjudicator for Minneapolis Aquatennial Music Contests, 1952 and 1954.

Paul S. Ivory was vice president, Minnesota Music Educators' Association, 1952-54; clinic chairman and executive secretary, annual clinic, Minnesota Music Educators' Association, 1952-54; honorary secretary for admissions and placement, School of Education, Harvard University, 1952-54; chairman, State Advisory Committee on Teacher Education, State Department of Education, St. Paul, 1952-54; adjudicator for Minnesota Public School Music League contests in Minnesota, Wisconsin, and Iowa, 1952-54; music consultant and assistant director for television broadcasts, Minneapolis Symphony Orchestra; member, National Committee on Research in Music Education, Music Educators' National Conference.

James J. Jenkins was principal investigator (with Dr. Russell), ONR contract for the study of verbal behavior; principal investigator, Air Force contract for the analysis of bombing errors (Eighth Air Force); member, Committee on Psychology and Linguistics, and participant, Summer Conference on Learning, Linguistics and Information Theory at Indiana University, Social Science Research Council, 1953; elected secretary-treasurer and member, Executive Committee, Minnesota Psychological Association.

Arthur B. Jennings was named regional chairman, American Guild of Organists, 1952-54; and consultant on organ construction in Pittsburgh, Pennsylvania, Duluth, Minnesota, and Minneapolis, 1952-54.

Arthur L. Johnson was appointed member, Advisory Committee, Bethesda Hospital School of Nursing in St. Paul, 1954.

Lawrence H. Johnston worked with Project Vista evaluating the National Defense Program, summer, 1952; and served as member, Working Group, Midwest Accelerator Association.

Robert L. Jones was research consultant, National Project in Agricultural Communications, 1954; research consultant, International Press Institute,

1952-53; research director of studies contracted for by Minneapolis *Star* and *Tribune*, *St. Paul Dispatch* and *Pioneer Press*, Minneapolis Hospital Council, *Scholastic Roto* and *Boston Post*; consultant in psychological warfare research and human factors intelligence, U. S. Air Force.

Tom B. Jones was secretary, Minnesota Chapter, American Institute of Archaeology, 1953-54; and personnel consultant, Central Intelligence Agency, 1953-54.

Philip D. Jordan was member, Executive Committee, Mississippi Valley Historical Association, 1954; and member, Executive Committee, National Folk Arts Foundation, 1952-54.

Gerhard K. Kalisch participated in Project on Theory of n-Person Games, Office of Naval Research (with B. R. Gelbaum and E. D. Nering); was invited participant in symposium on Game Theory, Princeton, New Jersey; member, Nominating Committee, and member, Executive Committee, Minnesota Section, Mathematical Association of America.

Blanche Kendall was elected second vice president, and membership chairman, Minnesota Music Teachers' Association Board, 1952-54.

John C. Kidneigh served as member, House of Delegates, member, National Board, member, Advanced Curriculum Committee, member, Editorial Committee, and chairman, Commission on Accreditation, Council on Social Work Education, 1952-54; served as member, Executive Committee, Welfare Council of Hennepin County, 1952-53; member, Board of Directors, Community Chest and Council of Hennepin County, 1952-54; member, Board of Directors, Minneapolis Urban League, 1953-54; member, Board of Directors, Family and Children's Service of Minneapolis, 1952-54; member, Home Service Committee, American Red Cross, 1952-54; chairman, National Social Service Advisory Committee, U. S. Veterans Administration, 1952-54; member, National Board, member, Executive Committee, and member, Executive Committee of the Twin City Chapter, American Association of Social Workers, 1953-54; member, Minnesota Unitarian Service Committee, 1952-54, and national consultant on social work, Unitarian Service Committee, 1954; consultant to Texas State Department of Public Welfare, 1953; consultant to Minneapolis Citizens League and member, Committee on Welfare and Health Services, 1952-54. He was presiding chairman of a section session, Committee on Administration and Personnel, National Conference of Social Work, 1954; and an invited participant in Columbia University Bicentennial Conference, 1954. He received special research grants on projects from the Louis W. and Maud Hill Family Foundation, 1954.

Fred L. Kildow served as director, National Scholastic Press Association, 1952-54; director, Associated Collegiate Press, 1952-54; and editor, *Scholastic Editor*, 1952-54.

Janet E. King served on oral examining board for social work candidates, State Civil Service Commission, 1953-54; and represented American Association of Social Workers Subcommittee on Social Work in Psychiatric Settings on the Inter-Association Committee on Personnel Practices, 1953-54.

Gisela Konopka served as member, chairman, Youth Participation Committee, and member, Committee on Institutions, Minnesota Governor's Advisory Committee on Youth; chairman, National Committee on Group Work in Psychiatric Settings, American Association of Group Workers, 1952-53; member, National Program Committee, Orthopsychiatric Conference, New York, 1954; invited as one of national experts on juvenile delinquency project, Children's Bureau, Washington, D. C., 1953 and 1954; served as delegate of National Consumers League to UNESCO meeting at University of Minnesota, September 1953; consultant to Bellefaire Institution, Cleveland, Ohio, January 1954; consultant to treatment institution, Jewish Children's Bureau, Chicago, Illinois, March 1954.

Joseph J. Kwiat was a member, Advisory and Nominating Committee, General Topic IX (Literature and the Arts), Modern Language Association, 1952-53; and served as Fulbright Professor of American literature at the University of Tubingen, 1953-54.

Frank M. Lassman was elected chairman, Committee on Clinical Standards in Hearing, and chairman, Sub-committee on Hearing, Clinical Certification Committee, American Speech and Hearing Association; acted as president, Minnesota Speech and Hearing Association, 1952-54; member, Abstracts

Committee (responsible for abstracts of articles in otological journals), *Journal of Speech and Hearing Disorders*; and was consultant on audiology, Committee on Conservation of Hearing, Minnesota Academy of Otolaryngology and Ophthalmology.

Donald B. Lawrence was awarded an Office of Naval Research grant. He served as chairman, Index Committee, 1952-54, and member, Publications Committee, 1952-54, Ecological Society of America; chairman, Subcommittee on Relation of Ecology to Glacier Studies, Committee on Glaciers, 1952-53, American Geophysical Union; chairman, Minnesota Committee on Wild Rice, 1952-54; member, Mazama Research Committee (glacier studies); member, Board of Directors, Natural History Society of Minnesota; editorial consultant, *Minnesota Naturalist*; member, Advisory Committee, Quetico-Superior Forest Research Center; and was consulting specialist, Curriculum Committee, Minnesota State Department of Conservation.

Werner Levi served as member, Board of Directors, Jewish Family Service, St. Paul. He presented a paper, upon invitation, to International Sociological Congress, 1953 in Liege, Belgium; conducted, upon invitation, a week's International Seminar on Asian Problems in Porte Ste. Fay, near Bordeaux, France, July 1953; participated, upon invitation, in roundtable of six social scientists on topic of "International Community" during July 1952 at Princeton University.

Jerome Liebling was awarded the Certificate of Merit from Screen Producers' Guild, Hollywood, California for film production, *Art and Seeing* (with Allen Downs); and received a \$100 prize in *Photography* contest, 1953.

Philip Lillestol served as adjudicator, Minnesota Music Teachers' Association piano contests, spring 1954; and as adjudicator, Minnesota Public School Music League piano contests, spring 1954.

Rodney C. Loehr was special historian for the Historical Division, Office of the Executive Secretary, Office of the United States High Commissioner for Germany, 1952-53.

Warren S. Loud refereed papers for *Econometrica* and for the *American Mathematical Monthly*. He was part-time participant in Nonlinear Mechanics Contract; and member, Executive Committee, Minnesota Section, Mathematical Association of America, 1952-54.

Juanita M. Luck served as chairman, Committee on Personnel Policies, American Association of Group Workers; chairman, Local Twin Cities Chapter, American Association of Group Workers, 1954; member, Study Committee, Council of Social Agencies, Minneapolis; member, Program Committee, Local Chapter, American Association of Social Workers; consultant, National Conference of Christians and Jews; and National Society for Crippled Children and Adults.

Clarence C. Ludwig served as editor, *Minnesota Municipalities*; member, Highway Study Commission; Governor's Civil Defense Advisory Committee; State Safety Council; Board of American Municipal Association; National Committee on Governmental Accounting; state correspondent for *Public Management*; and member, Advisory Board on Public Safety Projects, Public Administration Service of Chicago.

Willem J. Luyten received a grant from the Louis W. and Maud Hill Family Foundation for a research project, "A Search for Faint Blue Stars."

Kenneth MacCorquodale was named assistant editor, *Century Psychology Series* by Appleton-Century-Crofts, Inc., June 1952; served on Editorial Board of a proposed new psychological journal; and was awarded a Fellowship by the Fund for the Advancement of Education (Ford), 1954.

Mary Malcolm was examiner for Minnesota Music Teachers' Association, 1954.

Herbert McClosky was elected to Executive Committee, Midwest Conference of Political Scientists, 1952-54; and was awarded a Faculty Research Fellowship, Social Science Research Council, 1952-54.

William A. McDonald was elected member, Archaeology Club of Boston (limited to 60 members); treasurer, Minnesota Classical Conference (Latin Section of Minnesota Education Association), 1952-54; and secretary-treasurer, Minnesota Chapter, Archaeological Institute of America, 1952-53.

Tremainne McDowell was associate editor, *American Quarterly*, 1952-54; member, Council of the American Studies Association, 1952-54; and secretary-

treasurer, American Studies Group (Minnesota and the Dakotas); and member, Advisory Committee on American Studies, International Exchange of Persons.

Charles H. McLaughlin was member, Committee on the Teaching of International and Comparative Law, and member, Committee on Progressive Development and Codification of International Law, American Bar Association; member, Committee on Progressive Development and Codification of International Law, American Branch, International Law Association; first vice president, member, Board of Directors, chairman, Speakers' Group, Minnesota United Nations Association; member, Board of Directors, Minneapolis Foreign Policy Association; adviser to Board of Directors, Minnesota Atlantic Union Committee; Rapporteur of Work Group D-1, on "The Evolution of the United Nations and the Implications for Charter Revision," and member, commission which prepared working paper for Work Group I on "The Value of UNESCO in the Foreign Policy of the United States," UNESCO National Committee Conference, September 15-17, 1953; prepared working paper for Work Group III on "Revision of the Domestic Jurisdiction Limitation of the United Nations Charter," Institute on United Nations Charter Revision, University of Minnesota, April 9-10, 1954.

David J. Merrell was awarded a research grant from Office of Naval Research.

Paul E. Meehl was consultant in clinical psychology, U. S. Veterans' Administration, Ft. Snelling V.A. Hospital and Mental Hygiene Clinic; president-elect, Midwestern Psychological Association; elected to New York Academy of Sciences; and served as supervisor of research on grant from Geschickter Fund for Medical Research, 1952-54.

Dwight E. Minnich was member, Editorial Board, *Journal of Morphology*; representative, American Society of Zoologists on the Council, American Association for the Advancement of Science; trustee, Mount Desert Island Biological Laboratory, Salsbury Cove, Maine; and president, Minnesota Human Genetics League.

Elio D. Monachesi was elected state representative on the Executive Committee, Midwest Sociological Society, 1952-54. He served as program chairman, Sessions in Criminology, annual meeting, American Sociological Society, 1954; member, Board of Directors, Big Brothers Inc., of Minneapolis; and was awarded (with Starke R. Hathaway) a research grant by the United States Public Health Service for a five-year longitudinal study of social adjustment.

Samuel H. Monk was a member, Advisory Council, Department of English, Princeton University, 1952-54; and member, Regional Committee for the Selection of Woodrow Wilson Fellows.

Philip G. Morton served on jury of Fiber, Clay, and Metal, Second Annual National Craft Competition, St. Paul Gallery, September 1953. He exhibited in Twin Cities Annual Art Show, Minneapolis Institute of Fine Arts, October 1952; in one-man show of bronzes, Leonard Lynn Gallery, Winnetka, Illinois, October 1952; in one-man show of bronzes, Colorado Springs Fine Arts Center, Colorado Springs, Colorado, November 1952; in one-man show of bronzes, Contemporary Gallery, Salt Lake City, Utah, December 1952; in Walker Art Center Fantasy and Realism Exhibition, June 1954; and in Annual Oil and Sculpture Exhibition, San Francisco Art Association, February to April 1953. He was awarded special mention for "Aerial Catapult!" at above show.

Verval J. Mueller served as chairman, Council of Districts and Regions, American Association of Medical Social Workers, 1953-54; chairman, Committee on Admissions Policies and Selection of Students for Schools of Social Work, Council on Social Work Education, 1952-54; member, Executive Committee, 1953-54, member, Education Committee, 1952-54, Chairman, Committee on Medical Social Case Records, 1952-53, and member, Committee on Medical Social Work Curricula in Schools of Social Work, 1953-54, American Association of Medical Social Workers. He was named to the following posts in the Minnesota District: president, 1953-54, chairman, Personnel Practices Committee, 1952-53, member at large, 1952-53 and chairman and member, Executive Committee, 1952-54, American Association of Medical Social Workers. He served as member, Committee on Recruitment of Social Workers, Minnesota Welfare Conference, 1952-54; member, Personnel Practices Committee,

local chapter, American Association of Social Workers, 1953-54; and was chairman, Interassociation Committee on Personnel Practices, anticipating a single professional organization of social workers (American Association of Social Workers, American Association of Medical Social Workers, American Association of Group Workers), 1953-54.

Malcolm H. Myers received a Guggenheim Fellowship for 1953-54 for research in the field of graphic arts.

Arthur E. Naftalin served as director, and editor, *Newsletter*, Minnesota Affiliate, Citizenship Clearing House; member, Forms and Structures Committee, Citizens League of Greater Minneapolis.

Lowry Nelson served as chairman, Committee on Publications, Society for the Study of Social Problems, 1953-54; member, Executive Committee, American Sociological Society, 1953-54; member, Board of Directors, Social Science Research Council, 1952-53; chairman, Subcommittee on Migration Labor, National Planning Association, 1952-53; chairman, Subcommittee on Research on Agricultural Labor of the *Ad Hoc* Committee, Rural Sociological Society, 1952-53; and was named chairman, Social and Economic Sciences Section, and vice president, American Association for the Advancement of Science, 1953.

Evar D. Nering served as consultant for Goodyear Rubber Company, 1953-54.

Edward P. Ney served as consultant to the Air Force on security matters, through a personal consulting contract with Tufts College, and as consultant to the Beacon Hill committee, set up by Project Lincoln, Massachusetts Institute of Technology.

Alfred O. C. Nier served as consultant to General Mills, Inc., Minneapolis; consultant to Knolls Laboratory, Schenectady, New York, consultant to Oak Ridge Laboratory, Oak Ridge, Tennessee; member, Committee on Postdoctoral Fellowships, member, Division of Physical Sciences, member, Subcommittee on Nuclear Constants, and member, Subcommittee on Nuclear Geophysics, National Research Council; member, Advisory Panel for Physics, member, Divisional Committee for Mathematical, Physical and Engineering Sciences, National Science Foundation; President-elect, Society of Sigma Xi, University of Minnesota Chapter. He was elected to American Philosophical Society; and received research grant from National Science Foundation.

Raymond B. Nixon was editor, *Journalism Quarterly*; member, Executive Committee, National Council for Communications Research, 1952-54; Executive Committee, Association of Accredited Schools and Departments of Journalism, 1952-54; member, National Committee on Research, Sigma Delta Chi (professional journalism society), 1954; member, Public Relations Division of President Eisenhower's Committee on Employment of Physically Handicapped, 1953-54; member, National Panel of Arbiters, American Arbitration Association, 1953; and held special research grant from Minneapolis *Star* and *Tribune*, 1953-54, and Boston *Post*, 1953-54.

Maurine Norton was winner of (Young Artist Auditions) Louisiana Federation of Music Clubs, 1953.

Paul M. Oberg served as member, Graduate Commission, National Association of Schools of Music, 1952; executive secretary-treasurer, Minnesota Public School Music League, 1952-54; president, Evergreen Club of Minneapolis, 1953; president, Alpha Chapter of Minnesota, Phi Beta Kappa, 1953-54; member, Minneapolis Board for civil service examination in music, 1954; member, Board of Directors, Minnesota Music Educators' Association, 1952-54; member, Regional Committee, Music Teachers' National Association, 1952-54; president, Minnesota Music Teachers' Association, 1952; member, Executive Board, St. Paul Civic Opera Association, 1952-53; and adjudicator for state music organizations in Minnesota, Iowa, and Wisconsin, 1952-54.

John M. H. Olmsted was member, Admissions Committee, Minnesota Chapter, Society of Sigma Xi.

Gerald B. Ownbey was named Guggenheim Fellow, 1953-54.

Donald G. Paterson served as consultant, Veterans Administration re Vocational Counseling Training program; and was recipient of a research grant from U. S. Air Force on measurement of vocational interests of air force officers. He was awarded the honorary LL.D. degree by Ohio State University, December 1952.

Gerald Prescott served as chairman of music, Bands Committee, 1954, and member, Constitution Committee, 1953, American Bandmasters' Association; member, Board of Advisors for *Instrumentalist*; band clinician, Texas Music Educators' Association, 1953; adjudicator, National Chamber of Commerce Parade of Bands, Minneapolis, 1953, adjudicator, Michigan State Regional Contest, 1953, and member, Committee on Music Education and National Welfare, Music Educators' National Conference.

O. Alta Quello was chairman, Casework Section, Program of Minnesota Welfare Conference, 1952-53; member, Executive Board of Twin City Chapter, 1952-53, and chairman, Graduate Education Section of Regional Conference, 1953-54, American Association of Social Workers.

Charles E. Ramsey served as member, University Committee, International Center for Rural Education, 1953-54; member, Resolutions Committee, Midwest Sociological Society, 1954; represented American Sociological Society on Committee of American Council for Better Broadcasting, 1953-54; chairman, State Membership and Subscription Committees, 1953-54, and member, Subcommittee on Research in Agricultural Labor, Rural Sociological Society, 1953-54.

Sheldon C. Reed was member, Editorial Board, *Journal of Heredity*; member, Editorial Board, and secretary, American Society of Human Genetics; and secretary, Minnesota Human Genetics League. He was the recipient of research grants from: American Cancer Society, U. S. Public Health Service, Rockefeller Foundation, and Minnesota Human Genetics League.

Leo G. Reeder was representative of American Sociological Society on American Council for Better Broadcasting, 1953; consultant to Minnesota Heart Association, 1954; and director, Twin City Survey of Employer Attitudes and Practices Toward Cardiac Workers, Minnesota Heart Association.

Kurt Reichert served as social work specialist, U. S. High Commissioner's Office, Germany, March-September 1952; and vice chairman, Twin City Chapter, American Association of Social Workers, 1953-54.

Henry W. Riecken was consultant on program evaluation, Behavioral Sciences Division, The Ford Foundation; and consultant on the construction of selection tests for officers, U. S. Public Health Service.

Josephine L. Rollins received honorable mention for "Grand Marais, Michigan" in Third Biennial Exhibition of Prints and Drawings by Twin City Artists (Minneapolis Institute of Arts), May 1954.

John Rood was elected "Artist Laureate" by Delta Phi Delta (national art fraternity); was awarded grand prize for best work of art in exhibition, Minnesota State Fair, August, 1952; and was invited by Boston Symphony Orchestra to have one-man exhibition during the Berkshire Festival at Tanglewood, Lenox, Massachusetts.

Arnold M. Rose served as consultant to Human Resources Research Office, U. S. Department of the Army, 1952-54; received three-year research grant from Rockefeller Foundation, 1953; was vice president, Society for the Study of Social Problems, 1952-53; member, Program Committee, 1953, and member, Research Committee, 1953-54, International Sociological Association; member, Research Committee, Midwest Sociological Association, 1954; elected to membership, Sociological Research Association (honorary), 1952; and was awarded prize for essay in Social Theory, American Association for the Advancement of Science, December 1952.

Ephraim Rosen was consultant to Veterans' Administration Mental Hygiene Clinic, Ft. Snelling and St. Cloud; and member, Program Committee, Division of Personality and Social Psychology, American Psychology Association; oral examiner of applicants for clinical psychology posts in state hospitals for Minnesota Civil Service Commission.

Isaac Rosenfeld received Summer Fellowship in Creative Writing at Yaddo, Saratoga Springs, New York, 1953; and served on staff of Salzburg (Germany) American Seminar, 1954.

Ralph G. Ross served as secretary, Commission of Inquiry into Forced Labor, 1952-54; and as contributing editor, *The Standard*.

Wallace A. Russell was principal investigator (with James J. Jenkins), ONR contract for the study of verbal behavior.

Earl V. Rymer served as adjudicator, regional contests, Minnesota Public School Music League, May 1954; judge and critic, Twin City Catholic High

School contest, St. Paul; piano chairman, Minnesota Music Teachers' Association, 1953-54.

Henriette Saloshin served as president (Twin City Chapter), American Association of Group Workers, 1953-54; member, Committee Planning Regional Conference, Des Moines, Iowa, 1953-54; member, Social Planning Committee, Minneapolis Federation for Jewish Services; member, Advisory Committee on Education, and consultant, Midwest Region, National Conference of Christians and Jews; member, State Council, League of Women Voters.

Stanley Schachter was awarded a Fulbright Fellowship for 1952-53 and fall quarter, 1953, as visiting professor of psychology, University of Amsterdam and continued as research coordinator, Committee on Research in Inter-group Relations, in Europe.

Wilfrid Sellars continued as co-editor of *Philosophical Studies*, 1952-54; and was participating member, Minnesota Center for Philosophy of Science, 1953-54.

Otto H. Schmitt served as consultant, Air Research and Development Command, USAF; member, Board, Medical Electronics Professional Group, Institute of Radio Engineers; member, Editorial Board, *Circulation Research*; member, Council, Minnesota Academy of Science; and was named fellow, American Physical Society. He was awarded an ONR research grant; a USPHS heart research grant; and a Lilly research grant.

Roy A. Schuessler was named regional president, National Association of Teachers of Singing, 1952-53.

George M. Schwartz served as chairman, Minnesota State Mapping Advisory Board; member, Subcommittee on Fundamental Geologic Research, National Science Foundation; advisory member, Natural Resources Committee, Minnesota Society of Professional Engineers; member, Steering Committee, Glossary Project, American Geological Institute; and chairman, Committee on Publications, Society of Economic Geologists.

Lyndell N. Scott was secretary, Division of Graduate Schools, Commission on Schools and Departments, member, Committee on the Study of Undergraduate Education, and member, Committee on Field Work in the Advanced Curriculum, Council on Social Work Education.

Jesse M. Shapiro was promoted from associate to full membership in the Society of Sigma Xi.

Lloyd M. Short served as member, Board of Directors, Citizens' League of Greater Minneapolis; member, Board of Directors, Minnesota Institute for Governmental Research; and member, Joint Committee on Training for Government Service, Association of Land-Grant Colleges and Universities-U.S. Department of Agriculture. He was elected vice president, American Society for Public Administration, 1954.

Raymond H. Shove served as member, Executive Board, Minnesota Library Association, 1953-54; councilor, American Library Association, representing the Minnesota Library Association; and edited the *Directory*, Association of American Library Schools, 1953.

Mulford Q. Sibley was recipient of the Franklin D. Roosevelt award given by the Roosevelt Foundation and American Political Science Association for best book in "Government and Human Welfare," 1953. He was elected vice president, Regional Association for American Studies, 1954.

Donald K. Smith represented the Speech Association of America on Planning Committee, NEA Regional Instructional Conference; was member, Planning Committee, Minnesota Language Arts Institute, University of Minnesota, 1953; judged State High School Debate Tournament, State High School Forensic Meet, and State VFW Oratory Contest.

Henry N. Smith was advisory editor, *American Literature*, *American Quarterly*, the *Southwest Review*, and the *Journal of the History of Ideas*, 1952-53; served as member, Program Committee, Modern Language Association; member and secretary, Committee on American Civilization, American Council of Learned Societies; and member, Advisory Committee for European Lectureships in American Civilization.

Robert F. Spencer was awarded a contract with the Office of Naval Research and the Arctic Institute of North America to undertake a study of the human ecology of northern Alaska, 1952-54; was elected to the Council,

American Folklore Society, 1953-54; and was consultant, Committee for Free Asia, San Francisco, California, 1954.

Gale L. Sperry was named chairman, Minnesota Committee on New Music for Bands, College Band Directors National Association, 1953; adjudicator of district contests, Minnesota Public School Music League, 1954; conductor, Marching Band Session, Mid-Winter Clinic, Minnesota Music Educators' Association, 1954; and contest manager, East State Regional Contest, Minnesota Public School Music League, 1954.

Nelson T. Spratt, Jr., was awarded a Louis W. and Maud Hill Family Foundation visiting professorship at Gustavus Adolphus College; an Office of Naval Research Grant, 1953-54; and a U. S. Public Health Service Grant, 1953-54. He was member, Panel on Morphogenesis, Committee on Growth, American Cancer Society.

William Steigenga was appointed member, Union Internationale pour l'étude scientifique de la population.

H. Burr Steinbach was invited to give paper before Symposium on Active Transport, sponsored by the Society of Experimental Biology (United Kingdom) at Bangor, Wales. He served as assistant director, National Science Foundation for Biology and Medicine; member, Physiology Board, National Board of Medical Examiners; member, Central Committee on Survey of Physiological Science, American Physiological Society; Advisory Committee on Biology, Office of Naval Research; chairman, Editorial Board, American Institute of Biological Sciences *Bulletin*; and president, Society of General Physiologists.

Grover C. Stephens was awarded National Science Foundation Grant of Laboratory and Facilities at Woods Hole for summers, 1953 and 1954.

Blake G. Stern was adjudicator, Minnesota Public School Music League contests in various Minnesota communities, 1954.

Malcolm B. Stinson served on Sub-Committee on Living Arrangements, Governor's Commission on Aging, 1952-54; as consultant, Costs of Dependency Research Project, Minnesota Department of Public Welfare, 1952-54; member, Planning and Research Council, St. Paul Community Chest and Councils, 1952-53; editor, Social Work Research Group *Newsletter*, 1954; and was recipient of a grant for family-centered project from Louis W. and Maud Hill Family Foundation, 1953-54.

Allen Tate was awarded Fulbright lectureship on American literature at the University of Rome, 1953-54.

Marvin J. Taves served as secretary-treasurer, Midwest Sociological Society, 1953-54; and member, Program Committee, National Convocation of Town and Country Churches, 1954.

George A. Thiel served as chairman, Committee on Education, American Geological Institute; member, Advisory Committee on Conservation Education, State Department of Education; member, Industrial Solicitation Committee, Minnesota Academy of Science Scholarship Fund; and member, Scholarship Committee, Minnesota Academy of Science.

Hylton A. Thomas was awarded a fellowship, Belgian Art Seminar, Brussels, Belgium, July-August, 1953.

David W. Thompson served as president, Minnesota Association of Teachers of Speech; member, Rules Revision Committee, Minnesota State High School League Speech Activities; program chairman, speech section meetings, Minnesota Education Association; critic-judge, Minnesota State High School League; regional representative for the American Educational Theatre Association.

Miles A. Tinker is consulting editor of the *Journal of Applied Psychology*, June 1954.

Harold Tovish exhibited in one-man show of sculpture and drawings at the Walker Art Center, Minneapolis, September-November 1953; and in two-man show (with Marianna Pineda) of sculpture and drawings at Colorado Springs Fine Arts Center, November 1953-January 1954. He exhibited drawings in the Minneapolis Institute of Arts, April-May 1954, and was awarded third prize for a drawing which was purchased by the Institute.

Leonard Unger was a Guggenheim Fellow in 1953-54.

William Van O'Connor was Fulbright Professor of American Literature and Civilization at the University of Liege, Belgium, 1953-54.

Clifford N. Wall was associate editor, *American Journal of Physics*; and received the Oersted Medal, American Physical Association and American Association of Physics Teachers, 1953.

Franklin G. Wallace was consultant in parasitology, Veterans Hospital, Minneapolis.

George A. Warp served as honorary adviser, Japan Local Self-Government Institute, Tokyo, Japan; consultant, Public Administration Clearing House; member, Tort Liability, Municipal Law Office Organization, and Far Eastern Law Committees, American Bar Association; member, Executive Council, Minnesota Chapter, American Society for Public Administration.

John C. Weaver was chairman, Nominating Committee, Association of American Geographers, 1953-54; consulting editor, McGraw-Hill Series in Geography 1952-54; contributing editor, *Geographical Review*, American Geographical Society of New York, 1954; member, Editorial Board, *Annals of the Association of American Geographers*, 1952-54; member, Publications Committee, The International Geographical Union, 1952-54; director of, and participant in, Office of Naval Research Contract N8 ONR 66212, 1952-54; consultant and expert consultant to Committee on Geophysics and Geography, Research and Development Board, National Military Establishment. He was selected one of "Minneapolis 100 Leaders of Tomorrow" by *Time Magazine*, September 1953.

Frank M. Whiting served as chairman, Committee on Time and Place, American Educational Theatre Association; and as consultant to High School Theatre Construction, Hopkins and St. Louis Park, Minnesota.

John H. Williams was a consultant to the following Atomic Energy Commission establishments: Los Alamos Laboratory, Oak Ridge Laboratory, and Argonne National Laboratory. He served as member, Advisory Panel on Ultra-High Energy Accelerators, National Science Foundation; member, Subcommittee on Neutron Measurements and Standards, National Academy of Sciences; and member, Board of Directors, Midwestern Universities Research Association.

Harold W. Wilson was business manager, *Journalism Quarterly*, 1952-54; scholarship and internship, Newspaper Advertising Executives Association, summer, 1953; chairman, Audio-Visual Aids Committee, Association for Education in Journalism, 1953-54; and member, Advisory Board, *Gopher Historian*, Minnesota Historical Society.

E. William Ziebarth served as member, Executive Council, chairman, Radio-TV Section, and chairman, sectional division, Mass Communications, Speech Association of America; communications editor, *Speech Monographs*; consultant in communications, St. Paul and Minneapolis Boards of Education; member, Research Committee, Radio-Television, Association for Education by Radio-TV; member, Board of Directors, Minnesota Radio-TV Council; member, Committee on Audio-Visual Education (Tapes for Teaching Project), State Department of Education; member, Board of Judges, "I Speak for Democracy" Council; and consulting editor, *Central States Speech Journal*. He was elected to Delta Phi Lambda (for high competence in writing); received the Minnesota Radio-TV Council Award for "Highest Competence and Distinction in News Analysis," and the American Federation of Radio-TV Artists award "Best Radio Commentator of 1954."

**Institute of Technology**—Axel B. Algren served for the American Society of Heating and Ventilating Engineers as chairman, Technical Advisory Committee on Air Cleaning, member, Technical Advisory Committee on Heating and Air Conditioning as Related to Plant and Animal Husbandry, member, Steering Committee on Panel Heating and Cooling, and as member, Committee on Research. He was awarded a research grant from Portland Cement Association.

Neal R. Amundson was a member, Program Committee, American Institute of Chemical Engineers, 1952-54; and served as special consultant to Mechanical Division, General Mills, Inc. He was awarded a Guggenheim Fellowship for 1954-55; a Fulbright Scholarship for Cambridge University, for 1954-55; and was recipient of contracts from the Office of Naval Research on vapor phase reaction kinetics and from the Atomic Energy Commission on

transient analysis in natural circulation loops. He was chosen one of the "100 Newsmakers of Tomorrow," *Time Magazine*, September 1953.

Richard T. Arnold served as science attaché for the United States High Commissioner of Germany from August 1952-August 1953; and as editor of Volume 32, *Organic Syntheses*, 1952, and continued as member, Editorial Board, 1953-54.

Gust Bitsianes was awarded the Jernkontorets Fellowship to Sweden to visit and study iron and steel centers, June to September 1952. He was elected to Sigma Xi, June 1954.

Robert L. Bliss won the Fifth Prize in the Indianapolis Home Show, Small House Competition, 1954.

Stanley M. Block served on examining board, Minnesota Civil Service Department, 1953; as vice president and program chairman, Twin City Chapter, American Institute of Industrial Engineers; as associate member, Membership Committee and Administrative and Policy Planning Committee, Methods-Time Measurements Association for Standards and Research; and as panel member, Second State Government Clinic, sponsored by the Governor, March 1954.

Robert C. Brasted served as member, Operations Research Office, Logistics Division, United States Army; member, Nomenclature Committee on Organometallic Compounds, National Office, American Chemical Society; and was co-editor, *Comprehensive Inorganic Chemistry* (two volumes published, nine more volumes planned or in press).

Paul W. Bullen served as member, Planning Commission for the Village of Brooklyn Center, 1953-54; as Minnesota Representative to the North Mid-West Section, American Society for Engineering Education, 1953-54.

Paul A. Cartwright was named secretary-treasurer, 1952-53, and vice-chairman, 1953-54, Minnesota Section, American Institute of Electrical Engineers; and secretary, 1952-53, and chairman, 1953-54, Minnesota Branch, American Society for Engineering Education. He received the University of Minnesota Faculty "Recognition Award," 1954.

W. Brooks Cavin was vice president, American Interprofessional Institute, 1953-54; and member, Board of Directors, St. Paul Gallery and School of Art.

Norman H. Ceaglske served as chairman, Chemical Engineering Division, American Society for Engineering Education, 1953.

Robert G. Cerny is secretary, Civic Center Development Association; and member, Board of Directors, Minneapolis Chapter, American Institute of Architects.

Winston A. Close is member, Board of Directors, Walker Art Center; secretary, Minnesota Society of Architects, 1953; and member, Editorial Board, *College and University Business*.

Strathmore R. B. Cooke served as member, Papers and Publications Committee, Education Committee, Symposium Committee, and Pyrolysis and Agglomeration Committee, and member, Minerals Beneficiation Division, American Institute of Mining and Metallurgical Engineers.

Bryce L. Crawford, Jr., served as associate editor, Annual Reviews of Physical Chemistry, *Journal of Chemical Physics* and *Chemical Reviews*, 1953-54; secretary, Division of Chemical Physics, American Physical Society, 1953-54; chairman, Committee on Fellowships in Chemistry, 1953-54; and chairman, Sub-Committee on Molecular Structure and Spectra, National Research Council, 1953-54.

Edward W. Davis was honored, July 7, 1953, by the directors of Reserve Mining Company who passed a resolution naming their taconite project at Silver Bay, Minnesota, the "E. W. Davis Works."

Ralph L. Dowdell served as member, Howe Medal Award Committee, national treasurer, and chairman, National Finance Committee, American Society for Metals; member, Membership Committee, Engineers Club of Minneapolis; and treasurer, Minnesota Section, American Society for Engineering Education. He received a research grant from Flight Research Laboratory, Wright Air Development Center, Dayton, Ohio, for research on compressor blade alloys of the powder metallurgy type.

Ernst R. G. Eckert served as member, Technical Commission of Aircraft Heat Transfer, American Society of Mechanical Engineers; as consultant, National Advisory Committee for Aeronautics; and as consultant, Office of

Scientific Research, U. S. Air Force. He was elected to membership in the Society of the Sigma Xi.

Jesse E. Fant was elected secretary-treasurer, Northwest Section, American Society of Civil Engineers, January, 1953.

Stuart W. Fenton was awarded a Rohm and Haas research grant.

Robert L. Fillmore was elected member, Eta Kappa Nu (honorary electrical engineering fraternity), 1954.

Lawrence E. Goodman served as editor, *Proceedings Midwestern Conference on Solid Mechanics*, February 1954.

Newman A. Hall served as vice chairman and chairman, Twin City Chapter, Society of Automotive Engineers; and secretary and vice chairman, Heat Power Section of Mechanical Engineering, and member, Executive Committee of the Graduate Committee, American Society for Engineering Education; member, Organizational Committee, Combustion Institute; research consultant, Aero-Physics Division, Naval Ordnance Laboratory; director, Division of Engineering Sciences, Office of Ordnance Research, 1952-53; and as advisory consultant, Office of Ordnance Research, 1953-54.

Lawrence A. Harris was elected member, Eta Kappa Nu (honorary electrical engineering fraternity), 1952.

Donald C. Heath is consultant, State Board of Registration; chief, Minneapolis Fire Reserve Civil Defense; and chairman, Sub-Committee on Fire Protection, Citizens' League of Greater Minneapolis.

Fulton Holtby served as member, Board of Directors, Twin City Chapter, American Foundryman's Society. He was elected to Pi Tau Sigma (honorary engineering society); and was awarded research grant by Foundryman's Educational Foundation.

Warren E. Ibele was elected to membership in the Society of the Sigma Xi.

Herbert S. Isbin was awarded Atomic Energy Commission Research Grant to study two-phase flow; and National Science Foundation grant to study natural convection in regions of mass fluid density. He served as member, Program Committee, American Institute of Chemical Engineers; and special consultant, Mechanical Division, General Mills, Inc.

Henry S. Jerabek served on the Advisory Committee on Scholarships, 1953, and Howe Medal Award Committee, 1954, American Society for Metals.

Loyal A. Johnson was secretary, Minnesota International Hydraulics Convention, and editor of *Proceedings*, 1953; alternate delegate from Minnesota Section to Federation of Engineering Societies, 1953; member, Committee on Publicity, Annual Meeting, Minneapolis, June 1954, American Society for Agricultural Engineers; chairman, Technical Program Committee for Joint Meeting, American Society of Civil Engineers and International Association for Hydraulic Research, 1953; member of Governor's State Advisory Committee on Waters, 1952-54; member of Governor's State Advisory Committee on Conservation, 1952-54.

Otto H. Johnson was elected member, Norwegian Chemical Society; and was principal investigator on research contract, Air Research and Development Command, 1953-54.

Robert T. Jones was named president, Minneapolis Planning Commission.

Roy C. Jones served as president, National Architectural Accrediting Board.

Richard C. Jordan was elected national president, 1953, and served as member, Executive Committee, 1952-54, member, Council, 1952-54, and was awarded honorary grade of fellow, 1954, American Society of Refrigerating Engineers; member, Division of Engineering and Industrial Research, National Research Council, 1953-54; consultant, Advisory Panel for Engineering Sciences, National Science Foundation; member, Technical Advisory Committee on Heat Pumps, and vice chairman, Technical Advisory Committee on Cooling Loads, American Society of Heating and Ventilating Engineers; and member, Lamme Award Committee, American Society for Engineering Education. He was recipient of special research grants from the Refrigeration Research Foundation, from the American Society of Heating and Ventilating Engineers, and from the Snow, Ice, and Permafrost Research Establishment.

Thomas L. Joseph served as member, Board of Directors, member, Executive Committee, member, National Open Hearth Conference, member, Henry

Marion Howe Lecture Committee, member, Mineral Industry, Education Division, member, Minnesota Section, member, Iron and Steel Division, American Institute of Mining and Metallurgical Engineers; member, Education Committee, American Society for Metals; and inspector of curricula in mineral engineering, Education Committee, Engineering Council for Professional Development.

Emory N. Kemler served as chairman, Petroleum Division, 1953, chairman, Advisory Committee of Petroleum Division, 1954, chairman, Minnesota Section, 1953-54, and was elected to rank of fellow, American Society of Mechanical Engineers.

Miles S. Kersten was elected vice president, 1952, and president, 1953, Northwest Section, American Society of Civil Engineers.

Izaak M. Kolthoff served as director of research project on rubber sponsored by the Reconstruction Finance Corporation; member, Advisory Committee for Chemistry of Air Research; chairman, Committee of Analytical Chemistry, National Research Council; president, Section on Analytical Chemistry, and vice president, International Union of Pure and Applied Chemistry; associate editor, *Journal of the American Chemical Society*. He was awarded a grant from the U. S. Public Health Service, from the American Cancer Society, and from the Office of Ordnance Research. He was elected honorary member, Spanish Chemical Society, and served as honorary chairman of the 7th Annual Analytical Symposium.

Washington D. Lacabanne was consultant to State Tax Commission on the evaluation of iron ore tonnages, State of Minnesota.

Millard H. LaJoy served as president, Twin City Section, Instrument Society of America, 1953-54.

Sidney C. Larson served as member, Executive Board, John Ericsson School, Parent-Teacher Association, 1952-54.

Walter M. Lauer was chairman and member, Executive Committee, Organic Division, American Chemical Society.

Benjamin J. Lazan served as member, Committees E-9 and D-20, and member, Papers Subcommittee, American Society for Testing Materials.

Adolph O. Lee served as president, Minnesota Federation of Engineering Societies, 1953-54; member, Ethical Practices Committee, and member, Engineering Unity Committee, Minnesota Society of Professional Engineers; member, Board of Directors, Minnesota Section, American Society of Mechanical Engineers; and member, Board of Directors, and treasurer, Lutheran Student Foundation, Minnesota.

William N. Lipscomb served as associate editor, *Journal of Chemical Physics*, 1953-54; and received a research grant from the Office of Ordnance Research, 1954. He was named president-elect, American Crystallographic Association, 1953-54.

Robert S. Livingston received a Guggenheim Fellowship, 1953-54.

Jack Lown was elected to membership in Phi Delta Kappa.

Clarence E. Lund served as chairman, Research Committee, Condensation Control Committee, and Building Research Advisory Board, National Academy of Sciences; member, Committee on Heat Transfer and Fluid Flow, American Society of Refrigerating Engineers; and member, Clinical Advisory Committee on Fluid Flow, American Society of Heating and Ventilating Engineers. He received research grants from Bureau of Yards and Docks, U. S. Navy; Quartermaster Research and Development Laboratories, Department of the Army; Insulation Board Institute; Weatherstrip Research Institute; and Housing and Home Finance Agency.

William B. F. Mackay served as member, Executive Committee, Minnesota Chapter, American Society for Metals, 1952-54; vice chairman, Minnesota Chapter, member, Educational Committee, and chairman, Program Committee, American Society for Metals, 1952-54.

John M. MacKenzie served as program chairman, Minnesota Section, American Society for Engineering Education; and president, Minnesota Society of Industrial Engineers.

Allan E. Martin was participant in research contract, Bureau of Ships, Department of the Navy, 1953-54.

J. Lewis Maynard was co-editor of *Comprehensive Inorganic Chemistry* (two volumes published, nine more volumes planned or in press).

Harlan E. McClure was the recipient of a Fulbright Fellowship for teaching and lecturing in England.

Edward J. Meehan served as associate director of research project on rubber sponsored by the Reconstruction Finance Corporation.

Arthur N. Milgram served on the panel for the evaluation of pre-doctoral fellowships, National Science Foundation, 1952-54; and was recipient (with Paul C. Rosenbloom) of research grant from Office of Naval Research, 1952.

O. William Muckenhirn served as member, Air Raid Warning Committee, Minneapolis Civilian Defense; vice chairman, 1952-53 and chairman, 1953-54, Twin Cities Section, Institute of Radio Engineers; and chairman, Professional Group on Audio, Ways and Means Committee, Institute of Radio Engineers, 1953-54.

Wayland E. Noland was elected to the Society of Sigma Xi.

Thomas D. O'Brien was principal investigator on research contract, Atomic Energy Commission, 1952-54.

Paul R. O'Connor was contributor to *Comprehensive Inorganic Chemistry*, volume I, chapter 2, "Nuclear Chemistry."

Lewis G. Palmer served as secretary, Minnesota Branch, 1953-54, and member, Committee on Visual Education of the Drawing Division, 1952-54, American Society for Engineering Education; and member, Membership Committee, Minneapolis Engineer's Club, 1952-54.

William E. Parham continued as technical supervisor of contract, Office of Ordnance Research, 1952-54.

Joseph M. Pestarini was visiting professor, University of Technology, Zurich, Switzerland, June 14-30, 1954.

Eugene P. Pfeider served as mining engineer in charge of ore reserve estimate work, Minnesota State Department of Taxation; chairman, Mining-Geology-Geophysics Division, member, Board of Directors, member, Executive Committee, member, Mineral Industry Education Committee, American Institute of Mining and Metallurgical Engineers; member, Committee on Research, Engineering Foundation.

Edgar L. Piret was awarded a National Science Foundation research grant on theory of fracture, a Signal Corps contract on hydrothermal growth of crystals, and a special grant from the Minnesota Iron Range Resources and Rehabilitation Committee for study of chemical utilization of peat. He served as special consultant to the vice president, Minnesota Mining and Manufacturing Company, St. Paul. He was a member, Program Committee, American Institute of Chemical Engineers. He made a lecture tour sponsored by the Royal Institute of Dutch Engineers and the Association of Swedish Engineers, Spring, 1954.

Orrin W. Potter served as chairman, Special Awards Committee, Drawing Division, American Society for Engineering Education, 1953-54.

Stephen Prager received a grant from the Research Corporation, 1954.

George W. Preckshot was awarded a research contract by the Atomic Energy Commission. He was named treasurer, Twin City Section, American Institute of Chemical Engineers.

George E. Rafferty was awarded First Prize in the Carrier Air Conditioning Competition in the Pitched Roof, Class II House.

Lloyd H. Reyerson initiated the Foreign Scientist Research Program, established under the direction of the National Academy of Sciences and National Research Council, and was appointed chairman of the committee directing this program.

John F. Ripkin served as member and chairman, National Committee of Fluid Dynamics, American Society of Civil Engineers, 1952-54.

Paul C. Rosenbloom served as chairman, Slaughter Memorial Editorial Committee, Mathematical Association of America, 1953-54; member, Advisory Panel for Mathematical Sciences, National Science Foundation, 1954; and received a research grant (jointly with Arthur N. Milgram) from Office of Naval Research, 1952.

James J. Ryan served as director, Minnesota Section, American Society of Mechanical Engineers, 1953-54; and as alternate director, Minnesota Federation of Engineering Societies, 1953-54.

Ernest B. Sandell served as assistant editor, *Analytica Chimica Acta*.

John C. Scheib, Jr., served as secretary, Twin City Chapter, American Institute of Industrial Engineers.

George J. Schroeffer was elected president, Minnesota Section, American Water Works Association, September 1953.

William G. Shepherd served as vice chairman, Committee 7, member, Executive Committee, Professional Group on Nuclear Science, Institute of Radio Engineers; chairman, U.S.A. Commission 7, International Scientific Radio Union; Academy-Research Council delegate to the XIth General Assembly, International Scientific Radio Union; chairman, Electron Tube Research Conference, Stanford University, 1953; local chairman, Semi-Conductor Devices Conference, University of Minnesota, 1954; member, Predoctoral Fellowship Board, National Research Council-Radio Corporation of America; director, Secondary Emission Project, U. S. Army Signal Corps contract; and director, Cathode Nickel Project, research supported by the Bureau of Ships, Department of the Navy.

Edward Silberman was editor of *Proceedings*, Third Midwestern Conference on Fluid Mechanics, 1953.

Lee I. Smith was chairman, Sub-Committee on Graduate Training, American Chemical Society.

M. Cannon Sneed was co-editor of *Comprehensive Inorganic Chemistry* (two volumes published, nine more volumes planned or in press).

Athelstan F. Spilhaus served as deputy chairman and member of one committee, member of three panels, Research and Development Board, Office of the Secretary of Defense, 1952-54; chairman, Advisory Panel on General Sciences to the assistant secretary of defense (research and development), 1953-54; member, Advisory Committee on Weather Service, Department of Commerce, 1953-54; member, one committee, National Academy of Sciences, 1952-54; member, Subcommittee on Meteorological Problems, National Advisory Committee for Aeronautics, 1952-54; member, Research and Development Advisory Council, Army Signal Corps, 1952-54; member, Scientific Advisory Board, United States Air Force, 1952-54; member, Arctic Glossary Board of Consultants, United States Air Force, Headquarters Air University, 1952-54; member, Subcommittee on Atmospheric and Industrial Hygiene of the Division of Medical Sciences, 1952-53, and Committee on Environmental Protection, 1952-54, National Research Council; member, Permanent Subcommittee on Station Instruments and Exposure, Commission on Instruments and Methods of Observation, International Meteorological Organization, 1952-54; member, Board of Trustees, and chairman, Scientific Advisory Committee, Woods Hole Oceanographic Institution, 1952-54; member, Advisory Committee, Regional Commission on Marine Sciences, Southern Regional Education Board, 1953-54; chairman, Standing Committee on Meteorology, Pacific Science Association, 1952-54; member, United States delegation, and delegate of the National Research Council, Eighth Pacific Sciences Congress, Philippines, 1953; recipient, Exceptional Civilian Service Medal, United States Air Force, 1952; member, Baker Mission (civilian scientific mission sent by United States Army) to Korea, 1952; member, Advisory Commission, State Department of Business Development, 1953-54; member, Committee on Evaluation of Engineering Education, American Society for Engineering Education, 1952-53.

Richard D. Springer served as district chairman, Adult Leadership Training, Boy Scouts of America, 1953-54.

Arthur E. Stoppel was awarded a lectureship at Lago Oil and Transport Company, Aruba, Dutch West Indies, Spring, 1954.

Lorenz G. Straub served as president, International Association for Hydraulic Research, 1952-54; vice president, Union of International Engineering Organizations, 1952-54; member, Committee on Technical Sessions, 1952-54, Advisory Committee of Mechanics Division, 1952-54, and Executive Committee, Hydraulics Division, 1952, American Society of Civil Engineers; member, Council on Wave Research, The Engineering Foundation, 1952-54; member, Executive Committee, Division of Engineering and Industrial Research, 1952-54, and committee on Amphibious Operation, 1952-54, National Research Council; member, U. S. Beach Erosion Board, 1952-54; member, Mississippi River Parkway Commission, 1952-54; member and vice chairman, Upper Mississippi and St. Croix River Improvement Commission, State of Minnesota, 1952-54; and member, Advisory Board of Hydroballistics Research, Office of

Naval Research, 1952-54. He was awarded various research grants and served as principal research investigator, 1952-54, on many projects of the Office of Naval Research; Public Utility District, State of Washington; Bureau of Ships, Department of the Navy; Army Corps of Engineers; Minnesota State Highway Department and U. S. Bureau of Public Roads; Army Signal Corps; U. S. Department of Agriculture; and Erie Mining Company. He served as consultant on projects including: Missouri River Sediment Board, Missouri River Navigation Board, Consulting Board on Control of Lower Mississippi River, Board on Los Angeles River Flood Control, U. S. Waterways Experiment Station research, Committee on Tidal Hydraulics, and ESMOND project, Army Corps of Engineers, 1952-54; St. Lawrence Water Power Development, New York Power Authority, 1954; Indiana Harbor Development on Lake Michigan, 1952-54, and Beaver Bay Harbor and Taconite Harbor developments on Lake Superior, for mining and steel companies, 1953-54; hydroelectric developments in Peru, Iraq, El Salvador, 1952-54; port development in Nova Scotia; was consultant and chairman, Panel on Hydrology, Research and Development Board, Department of Defense, 1952-53; chairman, Editorial Advisory Committee, Civil Engineering Textbook series, Ronald Press, 1952-54. He originated and supervised unprecedented "friction control" closure of the Missouri River at Fort Randall Dam, Summer 1952.

James L. Threlkeld was elected to membership in the Society of the Sigma Xi.

Walter K. Vivrett served as member, Minnesota Commission on the Aging.

Henry H. Wade served as member, Crushing and Grinding Committee, 1952-53; and secretary-treasurer, 1954, Minnesota Section, American Institute of Mining and Metallurgical Engineers.

Stefan E. Warschawski was appointed member, committee to study methods of improving the teaching of mathematics to science and engineering students, Mathematical Association of America, 1953; and received a research grant from Office of Naval Research, 1952.

Kenneth T. Whitby served as technical advisor and member, Subcommittee 11 of Committee E-1 on Testing, American Society for Testing Materials.

Joseph A. Wise was consultant on Civil Defense, Civil Defense Center of Minnesota, 1953-54; and consultant on Civil Defense, State of Minnesota, 1953-54.

Donald H. Yardley served as consultant on Iron Ore Reserves, Minnesota State Tax Commission.

**Institute of Agriculture**—Torfine L. Aamodt was elected president, National Plant Board, 1952 and 1953.

William H. Alderman was awarded a Fulbright Fellowship, University of Salonica, Greece, October 1, 1953 to July 1, 1954.

Parker O. Anderson served as chairman, Conservation Committee, Minnesota American Legion, 1953-54; treasurer and director, Minnesota Forestry Association, 1953-54; director, Minnesota Conservation Federation, 1953-54; and member, Forestry Committee, Minnesota Bankers, 1953-54.

Philip A. Anderson was named secretary-treasurer, Minnesota Sheep Breeders' Association; chairman, Pork Carcass Committee, National Swine Show, 1952-53; and member, Meat Contest Committee, National Livestock and Meat Board Contests, Chicago, Illinois, and Kansas City, Missouri, 1953.

Elaine H. Asp served as research representative, and later chairman, Research Committee, Minnesota Home Economics Association Council; and secretary, Clovia Alumni Board of Directors, 1952-54.

Elmer R. Ausemus was elected fellow, American Society of Agronomy, 1952.

Clyde H. Bailey was elected chairman, Experiment Station Section, Association of Land-Grant Colleges and Universities, 1952; chairman, Research Committee, American Institute of Baking (to administer research fund grants from the Fleischmann Foundation), 1953; member, Postdoctoral Fellowship Committee, National Research Council, and member, Postdoctoral Fellowship Committee, National Science Foundation, 1953 and 1954. He was presented as one of the "Men of Minnesota" in the series published by Ralph H. Maxson, December 14, 1952.

Bruce C. Beresford was elected president, Crookston Lions Club, 1952-53; secretary-treasurer, Ninth District Horticultural Society, 1952-53; and superintendent, Potato Show, Red River Valley Winter Shows, Crookston, 1952-54. He served as judge for two Valley-wide flower shows, 1953.

Emmett N. Bergman was elected to the Society of the Sigma Xi, 1953.

Alice Biester served for the American Dietetic Association as member, Council Coordinating Cabinet, House of Delegates, and Internship Board. She was alternate delegate, House of Delegates, Minnesota Dietetic Association; chairman, Adult Nutrition Committee, and chairman, Bibliography Committee, Adult Nutrition, Minnesota State Nutrition Council; and participant in National Food and Nutrition Institute, Bureau of Human Nutrition and Home Economics, Washington, D. C.

Dorothy E. Bonnel was named secretary, Electric Women's Round Table, North Central Region, 1954; and was recipient of Staff Award, Order of Ski-U-Mah.

Paul D. Boyer was chairman, Minnesota Section, American Chemical Society, 1953. He was awarded the Lalor Fellowship, Marine Biological Laboratory, 1952; and research grants from: National Science Foundation, 1952; U. S. Public Health Service (jointly with David R. Briggs), 1953; Nutrition Foundation, 1954; and Eli Lilly Co., 1953.

David R. Briggs was elected president, Minnesota Chapter, Society of the Sigma Xi, 1953-54; and was recipient of a research grant from U. S. Public Health Service (jointly with Paul D. Boyer), 1953.

Grace D. Brill was elected to membership in Sigma Delta Epsilon (honorary society for women in science), 1953.

Charles R. Burnham received a travel grant from National Science Foundation to attend IX International Genetics Congress, Bellagio, Italy, August 24-31, 1953.

Paul M. Burson was awarded a research grant for soil studies from the Smith Douglass Company, Richmond, Virginia, 1953-54.

Alfred C. Caldwell was awarded research grant from the Hormel Institute for a study of soil problems in southeastern Minnesota, 1952-54.

John N. Campbell was elected to Phi Zeta, 1953.

Thomas H. Canfield was named secretary-treasurer, Minnesota Goose Producers Association; and delegate of the Minnesota Goose Producers Association to the Minnesota Poultry Industry Council.

Clyde M. Christensen was named honorary member, American College of Allergists and American Academy of Allergy; consultant to Kurth Malting Co., Milwaukee, Wisconsin, 1953; and was recipient of grants from: American Academy of Allergy, 1952-53; Cargill, Inc., 1952-54; Miller's National Federation, 1952-54; and Kurth Malting Company, 1952-53.

Jonas J. Christensen served as scientific adviser, Coordination of Research, Flax Institute of the United States, 1952-54; chairman, Conference on Control of Cereal Rusts by Therapeutants, St. Paul, Minnesota, February 1953; member, Committee on Publication of Special Materials 1953, and member, Committee on Membership, 1953-54, American Phytopathological Society. He was recipient of grants in 1953-54 from: Rockefeller Foundation, Army Chemical Corps, Dugway Proving Grounds, Johns-Hopkins University, and U. S. Atomic Energy Commission.

John O. Christianson was chairman, Governor's Advisory Council on Children and Youth, 1952-54, and chairman, Program Committee (for arranging the State-wide Conference), 1953-54; member, Board, and chairman, Student Exchange Committee, 1952-53, American Swedish Institute, Minneapolis; consultant, Committee on Short Course Scholarships, American Bankers Association, 1952-54; member, Board of Directors, National Conference of Christians and Jews, 1952-54; and member, National Midcentury Committee for Children and Youth, Inc., 1952-54. He was elected to Delta Theta Sigma fraternity.

Willes B. Combs was elected secretary, Minnesota Dairy Industry Committee, 1954.

Samuel T. Coulter served as chairman, Subcommittee on Dairy, Oil, and Fat Products, Committee on Foods, 1954; and member, *Ad Hoc* Subcommittee to Evaluate Armed Forces Food Research and Development Program, Com-

mittee on Foods, National Academy of Sciences—National Research Council Advisory Board on Quartermaster Research and Development, 1954.

Rex W. Cox was recipient of a research grant from Treasure Cave, Faribault, Minnesota.

Louis S. Cuendet was chairman, Spring Wheat Milling Subcommittee, American Association of Cereal Chemists.

Joseph O. Culbertson was elected president, Flax Institute of United States, November 1952; and elected Honorary Premier Seed Grower, 1953.

John N. Cummings received special research grants from Land O' Lakes Creameries, Inc., to conduct investigations in artificial insemination, 1952-54; and a research grant (with Dr. Irwin H. Kaiser) from the Louis W. and Maud Hill Family Foundation, for special work in physiology of the fetus in utero, 1953-54.

William H. Dankers served as lecturer on American agricultural organization and administration and agricultural policy, at American Houses in Germany, sponsored by International Exchange Service, U. S. State Department, 1953-54; member, Board of Directors, Minnesota United Nations, 1952-54; and was delegate to United Nations Educational, Scientific, and Cultural Organization meetings in Minnesota, 1953.

Austin A. Dowell was member, Resident Instruction Committee on Organization and Policy, Association of Land-Grant Colleges and Universities, 1953-54.

Donald P. Duncan served as chairman, Recreation Division, Society of American Foresters, 1954; abstracter, *Biological Abstracts*, 1953-54; and administered a Lake States Forest Experiment Station research grant, 1953-54.

Ray S. Dunham served as chairman, Technical Committee, North Central Weed Control; and member, Editorial Board, *Weeds* (Journal of the Association of Regional Weed Control Conferences).

Carl J. Eide was member, North Central Regional Potato Breeding Research Committee, 1953; and member, International Conference on Potato Late Blight and Potato Virus Problems, 1953. He was recipient of grants from Calumet and Hecla, 1952-53 and Tennessee Copper Corporation, 1953 and 1954.

Laddie J. Elling served as chairman, Central Alfalfa Improvement Conference.

Gertrude A. Esteros served as member, Nominating Committee, Pi Lambda Theta (national); as chairman, Program Committee, Minnesota Chapter, Pi Lambda Theta; as chairman, International Relations Committee, Minnesota Home Economics Association; represented the state president of the Minnesota Home Economics Association at the Conference on The Home Economist in Expanding Programs of International Service, New York City, May 1954.

Homer D. Fausch was elected to the Society of the Sigma Xi, June 1953; and served as member, Futurity Committee, Red River Valley Winter Shows, 1952-54.

Theodore H. Fenske was awarded the honorary degree, doctor of science, from the University of North Dakota, June 5, 1954. He served as member of a two-man team sent by the American Swedish Institute of Minneapolis to study agricultural experiment stations and farm operation practices in the Scandinavian countries, summer, 1953; served as chairman, Planning Committee, Minnesota Crop Improvement Association, 1952-54; and member, National Organization Committee, Boy Scouts of America, 1952-54.

Evan F. Ferrin was named director, St. Paul Union Stock Yards Company and director, Minnesota Live Stock Breeders' Association.

James B. Fitch received the American Dairy Science Association award for outstanding contributions to the dairy industry, June 1954.

David W. French served as member, National Oak-Wilt Technical Committee and Regional Oak-Wilt Committee, 1953 and 1954; member, Planning Committee, International Insect and Disease Conference, St. Paul, Minnesota, January, 1953; and was recipient of grants from National Oak Wilt Research Committee, 1952-54, and Firestone Tire and Rubber Co., 1952-54.

William F. Geddes served on committees of the National Research Council, Academy of Sciences, Washington, D. C. as follows: member, Committee

on Foods, and chairman of its Subcommittee on Cereals and Baked Products, Advisory Board on Quartermaster Research and Development; and as member, Committee on Cereals, and member, Subcommittee on Food Technology, Food Protection Committee, Food and Nutrition Board. He was appointed general collaborator for the Northern Utilization Research Branch, U. S. Department of Agriculture, Peoria, Illinois; served as chairman, Committee on Monographs, American Association of Cereal Chemists; editor, *Cereal Chemistry*; editor, *Transactions of the American Association of Cereal Chemists*; chairman, Committee on Publications, member, Committee on Chemicals in Foods, and member, Committee on Food Standards, Institute of Food Technologists; and was recipient of research grants from American Dry Milk Institute, Chicago, Corn Products Sales Co., Chicago, Millers National Federation, Chicago, and National Grain Trade Council, Washington, D. C. (with Clyde M. Christensen), and U. S. Army, Washington, D. C.

Archie L. Good was elected to the Society of the Sigma Xi, 1954.

Annette Gormican was public relations chairman, Minnesota Dietetic Association, 1953-54.

Alexander A. Granovsky was named to active membership, Académie Internationale Libre des Sciences et des Lettres, Paris, France.

Ralph S. Grant was member, Board of Directors, Northeast Minnesota Dairy Day Program; and vice president, Duluth Hortus Club.

Henry J. Griffiths served as secretary-treasurer, Minnesota Chapter, Society of the Sigma Xi, 1953-54.

Otis F. Hall served as vice chairman, Southern Minnesota Chapter, and member, Economics Committee, Upper Mississippi Valley Section, Society of American Foresters, 1953-54; and as member, state committee established to prepare conservation education source materials for secondary school use, 1952-54.

Paul B. Hammond was elected to the Society of the Sigma Xi, 1954.

Henry L. Hansen served as secretary, Division of Silviculture, Society of American Foresters, 1954; chairman, Advisory Committee, Quetico-Superior Research Center, 1952-54; and as summarizer, Woody Plant Project, North Central Weed Control Conference, 1952-54.

Lester E. Hanson served as member, 1952 and chairman, 1953, Committee on American Feed Manufacturers' Award; and member, Subcommittee on Feed Adjuvants, 1953-54, National Research Council. He was recipient of special research grants from Abbott Laboratories, Archer-Daniels-Midland, Merck and Company, Northwest Feed Manufacturers' Association, Northwest Retail Feed Dealers' Association, Lederle Laboratories, Pennsylvania Salt Company, American Dairy Association, and the Du Pont Company.

Leonard L. Harkness received citation for work in the field of education and community service, Hamline University Centennial, 1954.

Helen Hart was vice president and member, Council, American Phytopathological Society, 1953-54; and member, International Wheat-Stem-Rust Conference, 1953.

Ermond H. M. Hartmans served as editor, *Contact Magazine for Farm Management* in Holland, 1952; and was head, Dutch delegation to International Farm Management Conference, Bonn, Germany, 1953.

Alfred L. Harvey was chairman, Type Committee, Red Polled Cattle Club of America; and secretary, Minnesota Horse Breeders' Association.

Herbert K. Hayes, was appointed professor of plant breeding, Cornell-Los Banos Project, College of Agriculture and Central Experiment Station, Laguna, Philippines.

Harold G. Heggeness was recipient of grant from Pittsburgh Coke and Chemical Co., 1953-54.

Alexander C. Hodson served as member, Minnesota Forestry Research Council; member, Subcommittee on Animal Reservoirs and Vectors of Disease, National Research Council; member, Governing Board, Entomological Society of America; and editor, Tree Insect Section, *Biological Abstracts*. He is president-elect, Minnesota Chapter, Society of the Sigma Xi; and was awarded a research grant from the Iron Range Resources and Rehabilitation Commission for a study of effects of forest tent caterpillar defoliation of forests in Northern Minnesota.

Frederick G. Holdaway was chairman, Inter-departmental Technical Committee for research on legume seed production made possible by a special grant from Iron Range Resources and Rehabilitation Commission.

Andrew Hustrulid was elected secretary-treasurer, Minnesota Federation of Engineering Societies, May 1, 1954.

Kathleen M. Jeary served as president, 1952-53, budget chairman, 1953-54, Minnesota Home Economics Association; and member, Executive Board, Minnesota Vocational Association, 1952-53.

Robert Jenness received the Borden Award in 1953 for outstanding achievements in the chemistry of milk. He was appointed member, Editorial Board, *Journal of Dairy Science*, 1953; and was awarded (with William F. Geddes) research grants by American Dry Milk Institute, Chicago, for researches on the effect of heat treatment on the value of milk and milk products for bread-making.

Oscar B. Jesness served as member, Advisory Committee on Foreign Trade and Technical Assistance, U. S. Department of Agriculture; was invited by Secretary of Agriculture Benson to participate in a meeting of the Agricultural Advisory Commission to consider farm programs; served as member, Foreign Commerce Committee, Chamber of Commerce of the United States; member, Advisory Council, Agricultural Commission, American Bankers Association; member, Editorial Committee (for a text on agricultural credit), American Institute of Banking; and was awarded gold medal and certificate by American Farm Bureau Federation "for distinguished and meritorious service in the interests of organized agriculture."

Elmer M. Johnson was elected to the office of municipal judge, Village of Fridley, 1952-54.

Elton L. Johnson served as president, Minnesota Poultry Industry Council, 1953-54; host chairman for broiler producers which resulted in organization of the Minnesota Broiler Producers Association, February 1953; and vice president, Minnesota Poultry Improvement Board, 1954. He was recipient of research grants from Merck and Co., Inc., Sulphite Pulp Manufacturers' Research League, Inc., and Vy-Lactos Laboratories, Inc.

Harold E. Jones served as member, Committee on Meetings, vice chairman, Extension Agronomist sub-section Education Division, American Society of Agronomy, 1953-54.

Frank H. Kaufert received Rockefeller grant to serve as director, study of forestry research in North America, for the Society of American Foresters, 1953-54. He was named president, Keep Minnesota Green, Inc., 1952-54; secretary, Minnesota Research Council, 1953-54; chairman, 1953, and member, 1954, Forest Management Committee, Upper Mississippi Valley Section, Society of American Foresters. He served as member, National Advisory Board, American Forest History Foundation, 1952-54; and as adviser on forestry and forestry products problems, Minnesota Iron Range Resources and Rehabilitation Commission, 1953-54.

Howard C. H. Kernkamp was recipient of research grant from the U. S. Public Health Service for studies on leptospirosis in cattle and swine. He was named president-elect, Minnesota State Veterinary Medical Society, January 1954.

Milton F. Kernkamp served as president, North Central Division, American Phytopathological Society, 1952-54; member, Committee on Teaching, 1953-54, and member, Committee on Utilization of Personnel and Facilities in National Emergencies, 1953-54, American Phytopathological Society.

Thomas H. King served as member, Regional Technical Committee on Stone Fruit Viruses, Project NC-14, 1953 and 1954; and member, North Central Regional Committee on Relation of Weather to Agricultural Production, 1953 and 1954. He was recipient of research grants from Green Giant Company 1952-53 and 1953-54, and from Shell Chemical Company 1953-54.

Ralph L. Kitchell served as president-elect, American Association of Veterinary Anatomists, 1953-54.

E. Fred Koller was awarded a research grant from the Elwell Foundation, Minneapolis.

Thor Kommedahl was member, Committee on Membership, American Phytopathological Society, 1953 and 1954.

Fred A. Krantz was elected an honorary life member, Potato Association of America, September 1953; served as chairman, Northcentral Regional IR-1 Committee (inter-regional project) on the introduction, preservation, classification, distribution, and preliminary evaluation of wild and cultivated species of *Solanum*; and as member, Regional NC-7 Technical Committee, on the introduction, multiplication, preservation, and testing of new and useful plants of potential value for industrial and other uses.

Jane M. Leichsenring served on Sub-committee on Nutrition, Governor's Advisory Committee on Mental Health, 1952-54; was president, Minnesota Dietetic Association, 1952-53; member, Council, Minnesota Home Economics Association, 1952-53; and recording secretary, and chairman, Information Committee, Minnesota State Nutrition Council, 1953-54.

Ramer D. Leighton served as superintendent, Cattle Division, Minnesota State Fair, 1953; chairman, Resolutions Committee, Extension Section, Dairy Science Association, 1953-54.

Irvin E. Liener served as member, Scientific Advisory Board, American Dairy Association; and president, Twin Cities Nutrition Seminar group, 1954. He was recipient of research grant from the U. S. Department of Agriculture.

Eleanor Y. Loomis served as vice president, Minnesota Section, American Home Economics Association, 1954; and as regional counselor, Phi Epsilon Omicron, 1954.

Walter O. Lundberg, at the invitation of the Chemical Institute of Canada, spent two weeks on a lecture tour of Western Canada. He served as chairman-elect, Agricultural and Food Chemistry Division, American Chemical Society, 1953-54; and as member, Board of Directors, Research and Development Associates, Quartermaster Food and Container Institute, 1952-54. He received a travel award from National Science Foundation to attend Second International Congress of Biochemistry in Paris, France, July 1952; and was awarded research grants from Nutrition Foundation, Inc., New York, Archer-Daniels-Midland Company, Minneapolis, and others.

Herschel H. Lysaker served as member, Executive Committee, Lake Agassiz Boy Scout Council, 1953; member, State Board, Minnesota State Amateur Baseball Association, 1953-54; regional baseball commissioner for Northern Minnesota, 1953; and member, School Survey Committee, University of North Dakota, 1953-54.

John M. MacGregor was awarded research grants from Middle West Soil Improvement Committee, Chicago, 1952-54; from the Spencer Chemical Company, Kansas City, Missouri, 1952-54; and from Minnesota Liquid Fertilizer, 1953-54.

Harold Macy served as vice chairman, State Soil Conservation Committee, 1953-54; member, Committee on Distribution of Bulletins to Foreign Countries (joint committee with ESCOP), Association of Land-Grant Colleges and Universities), 1952-54; member, Senate, 1953-54, member, Executive Committee, 1952-54, and chairman, Division of Agriculture, 1953-54, Association of Land-Grant Colleges and Universities; member, Committee of Nine, 1952-54; member, Executive Committee, Minnesota Safety Council, 1953-54; member, Hormel Institute Board, 1952-54; member, Advisory Committee on Grain Sanitation (established jointly by the secretaries of U. S. Department of Agriculture and the Department of Health, Education, and Welfare), and chairman of its Subcommittee on Rodent and Insect Contamination, 1953-54. For the North Central Regional Technical Committee he was administrative adviser on "Control of Newcastle Disease of Poultry and Other Respiratory Diseases," 1952-54, administrative adviser on "Death Losses in Young Pigs," 1952-54, and alternate administrative adviser on Textiles and Clothing, 1954. He was appointed member of Commission to Seoul National University of Korea, by Foreign Operations Administration; and was named liaison representative of ESCOP to National Science Foundation, Association of Land-Grant Colleges and Universities, 1953-54.

Philip W. Manson received a research grant to improve the durability of concrete farm drain tile, American Concrete Agricultural Pipe Association (Chicago), and was assigned as technical agricultural expert for a period of four months in 1952-53 to the Food and Agricultural Organization of the United Nations, Rome, Italy, to assist the Hebrew University of Jerusalem

in establishing a new Department of Agricultural Engineering in the Hebrew Institute of Technology (Technion) located at Haifa, Israel.

William H. Marshall served as vice president, Minnesota Academy of Science.

George W. Mather was elected to the Board of Directors, Minnesota Humane Society, 1954; and to the Society of the Sigma Xi, 1954.

Thomas M. McCall served as president, Board of Managers, Red River Valley Winter Shows, Inc., 1952-54; served as president, Red River Valley Livestock Association, 1952-54; served as president, Red River Valley Development Association, 1952-54; was elected director, Red River Valley Water Conservation Commission, 1954; member, Interstate (North Dakota and Minnesota) Potato Research Committee, 1952-54; member, American Society of Horticultural Science, 1952-54; and life and honorary member, Minnesota State Horticultural Society, 1952-54.

Gerald R. McKay had a 15 months' assignment with the Foreign Operations Administration in Paris, France, serving as consultant on the use of audio-visual aids in agricultural extension work in Western Europe, 1953-54.

Paul R. McMiller was a member, North Central Soil Survey Subcommittee, 1952-54.

Robert A. Merrill was elected to Phi Zeta, 1953.

Clarence E. Mickel served as president, International Great Plains Conference of Entomologists, 1952 and 1953.

Paul E. Miller served as a member, 1953-54, and chairman, 1954, Extension Committee on Organization and Policy, Association of Land Grant Colleges and Universities; member, Board of Trustees, National 4-H Foundation, 1954; member, Board of Directors, Agricultural Communications Project (supported by the Kellogg Foundation), 1953-54; director, Minnesota United Nations Organization; member, State Soil Conservation Committee, 1953-54; member, Agricultural Resources Committee for Minnesota, 1952-54; member, Board of Directors, Seventh District Farm Credit Administration, 1952-54; chairman, Board of Directors, Minneapolis Federal Reserve Bank, 1954; delegate to the President's White House Conference on Highway Safety, 1954; member, National Committee on Manpower Resources for National Security, 1953-54; appointed by the director, Foreign Operations Administration, to be one of a three-man team to evaluate foreign aid programs in Denmark during 1953; member, National Farm Labor Advisory Committee to the U. S. Department of Labor, 1953-54.

Ralph E. Miller served as member, Board of Directors, St. Paul YMCA, 1952-54; member, Board, 1952-54, and vice president and program chairman, 1954, Chelsea Heights Parent-Teacher Association; member, Board, 1953-54, vice president 1953-54, president, 1954, Chelsea Heights Child Study Group, Inc.

Matthew B. Moore served as member, North Central Technical Committee on Oat Improvement, 1954.

Evelyn Morrow received Farm Foundation Scholarship for year of study at University of Chicago, 1952-53; was elected to Pi Lambda Theta (honorary educational fraternity), 1953; and served as delegate to International Quota Club, 1954.

Will M. Myers served as vice-chairman, Organizing Committee, chairman, Executive Committee, chairman, Program Committee, chairman, Publications Committee, and secretary-general, VI International Grassland Congress, August 1952; was appointed to Board of Agricultural Advisors, Rockefeller Foundation, April 1954; received grant of funds from Rockefeller Foundation for "Research on Genic Potentials in Wheat and Its Principal Relatives," 1953; served as chairman, Grass Committee, International Crop Improvement Association; received grant of funds from American Swedish Institute for study of crop production and research in Sweden, Denmark, and Norway, summer of 1953.

Josephine B. Nelson served as member, Press, Radio, and Television Committee, National 4-H Club Congress, December 1953; member, Reuben Brigham Award Committee, American Association of Agricultural College Editors, 1953-54; member, Public Relations Committee, Minnesota State Nutrition Council, 1953-54; and member, Publicity Committee, Minnesota State Horticultural Society, 1953-54.

Ralph G. Nichols served as member, Executive Council, National Society for the Study of Communication, 1953; and associate editor, *Journal of Communication*, 1954.

Isabel Noble served as chairman-elect, 1952-53, and chairman, 1953-54, Food and Nutrition Division, American Home Economics Association; secretary, Minnesota Nutrition Council, 1952-53, and member, Board of Directors, National Health Council, 1953-54.

Truman R. Nodland served as secretary-treasurer, Minnesota Farm Managers' Association.

Joseph A. Nowotny organized and supervised the athletic program for the American Legion Boys State (Minnesota), 1953 and 1954; was member, Rules Committee (wrestling), National Amateur Athletic Union, 1953 and 1954; chairman, Independent Athletic Conference, 1954; and chairman, Basketball Tournament, 1954, Independent Athletic Conference.

Robert E. Nylund served as member, Nominating Committee, American Society for Horticultural Science.

J. C. Olson, Jr., served as member and technical adviser on matters concerning the quality of the milk supply of Minneapolis and St. Paul, Quality Control Committee, 1954; technical consultant, Milk Advisory Committee, Minnesota Department of Agriculture, 1954; institutional member, Research and Development Associates, Food and Container Institute, Inc., 1954; associate editor, *Journal of Milk-Food Technology*, 1954; secretary-treasurer, Minnesota Milk Sanitarians Association, 1954; responsible investigator, Commission on Environmental Hygiene, Armed Forces Epidemiological Board, 1954.

Warren E. Olson was awarded a Ford Foundation Internship, 1954-55.

Charles K. Otis served as secretary, University Baptist Church, Minneapolis; chairman, Local Arrangements Committee, 47th Annual American Society of Agricultural Engineers Convention; chairman, Technical Committee, 47th Annual American Society of Agricultural Engineers Convention; chairman, Technical Committee, Regional Farm Structures Research Project NC-23.

William E. Petersen was president, Minnesota Society for Prevention of Cruelty, 1954; consultant on dairy problems, under the auspices of the Minister of Agriculture of Peru, August, 1953; and received an honorary professorship, Agricultural College of Peru, 1953.

Allan G. Peterson, received a research grant from Vesical Company, Chicago.

Ethel L. Phelps served as chairman, Textiles and Clothing Division, Research Committee, American Home Economics Association, 1952-54; member, Technology Advisory Board, *Journal of Home Economics*; member, Bibliography Committee, American Association of Textile Chemists and Colorists; member, Advisory Committee on Commercial Standards, National Bureau of Standards; member, Fabrics Committee, Better Business Bureau, Minneapolis.

Robert A. Phillips served as secretary-treasurer and secretary, Program Committee, Annual Meeting, American Rose Society.

Alvey M. Pilkey served as member and junior clerk, Session, First Presbyterian Church, Crookston, 1953-54; Session delegate to Adams Presbytery 1953; and church delegate to Training School on Stewardship and Promotion, Presbyterian Synod of Minnesota 1953; and banquet chairman, Red River Valley Winter Shows, Crookston, 1952-54.

Robert R. Pinches served as chairman, Advisory Committee for the Rural Youth of USA Conference, 1953-54.

Emmett L. Pinnell served as a member, Executive Committee, North Central Corn Conference; and served as FOA representative on corn breeding project in Yugoslavia, 1953-54.

Benjamin S. Pomeroy was recipient of research grants for studies on diseases of chickens and turkeys, from the Minnesota Turkey Growers Association, Lederle Laboratories, Charles Pfizer and Company, and Hess and Clark.

Philip M. Raup served as a member, Board of Editors, *Land Economics*.

Louis W. Rees served as member, Committee D-7, American Society for Testing Materials, 1952-54.

A. Glenn Richards was the recipient of two contracts from the Surgeon General, U.S. Army.

Ernest H. Rinke served as consulting editor (crops), *Agronomy Journal*.

Martin H. Roepke was recipient of research grants for studies on brucellosis in cattle, Agricultural Research Service, U. S. Department of Agriculture. He was elected to Phi Zeta, 1953.

Clayton O. Rost served as member, Missouri Basin Research Committee, 1952-54; member, North Central Region Soil Research Committee, 1952-54; consulting editor, *Soil Science*, 1952-54. He held research grants from: American Potash Institute, Inc., Washington, D. C., 1952-54; Clay County Conservation District, Moorhead, Minnesota, 1952-53; Erie Mining Company, Cleveland, Ohio, 1952-54; and Smith-Douglass Company, Norfolk, Virginia, 1952-53.

John B. Rowell served as panel member, Symposium on Genetics of Pathogenic Fungi, American Institute of Biological Societies, Madison, Wisconsin, September 1953.

Jay H. Sautter was recipient of research grants from Northern Regional Laboratory and E. I. du Pont de Nemours.

Thorwald Schantz-Hansen served as director, Board of Education, Independent School District Number 7 (Carlton County), Cloquet, Minnesota, and was chosen as most outstanding school board member of Carlton County. He was county chairman, Conservation Committee, Minnesota Arrowhead Association; and advisory member, Conservation Committee, Duluth Chamber of Commerce.

Athelene Scheid was elected to membership in Omicron Nu (honorary home economics society), Michigan State College, 1953.

Alois R. Schmid served as chairman, Coaches Committee, National Intercollegiate Crops Judging Contests, 1953.

Arthur E. Schneider served as chairman, Upper Mississippi Valley Section, Society of American Foresters, 1953-54; and adviser, Keep Minnesota Green, 1954.

Max O. Schultze served as chairman, Program Committee, Minnesota Section, the Society of the Sigma Xi, 1953-54. He received research grants from Williams-Waterman Fund, Research Corporation, and from the U. S. Department of Agriculture (jointly with the School of Veterinary Medicine).

Miriam Scholl served as co-chairman, Convention Committee for Special Guests Registration, Minnesota Dietetic Association, 1952-53; member, Education Committee, Minnesota Restaurant Association; member, Minnesota Nutrition Council, 1952-54; and member, Joint Committee on setting up qualifications and standards for school lunch personnel, American School Fund Service Association, American Dietetic Association, 1953-54.

Arthur J. Schwantes served as engineering adviser, Farm Mechanization, Government of Egypt (Cairo) for Technical Cooperation Assistance, Foreign Operations Administration, U. S. Department of Agriculture, 1952-53; member, Committee on Honors and Awards, American Society of Agricultural Engineers. He was awarded a Service Recognition Certificate by Minnesota Safety Council, May 12, 1954.

Alvin F. Sellers was recipient of research grants from Agricultural Research Service, U. S. Department of Agriculture; U. S. Public Health Service; U. S. Air Force; and Louis W. and Maud Hill Family Foundation.

Helen E. Sherrill was a member, Board of Directors, National Council on Family Relations, 1953-54, served as consultant on home and family living for regional meeting, National Education Association, Minneapolis; and represented the American Home Economics Association at the St. Paul Conference, Association for Childhood Education, International.

Robert N. Shoffner served as chairman, Committee on Arrangements, Midwest Poultry Breeders Conference (University of Minnesota), September 1953; chairman, Technical Committee, Regional Poultry Breeding Project, 1954; member, Minnesota Turkey Breeder Hen Committee; and ex officio member, Minnesota ROP Breeders Association.

Dorothy Simmons served as president, Minnesota Home Economics Association, 1953-54; and was elected to membership, Extension Organization and Policy Committee, Association of Land-Grant Colleges and Universities, 1954.

Hubert J. Sloan served as president, 1952-53, and member, Board of Directors, 1953-54, Poultry Science Association.

Fred Smith held the following lectureships: American Association for the Advancement of Science (St. Louis Meeting), December 1952; Canadian Insti-

tute of Chemistry (spent two weeks in the fall of 1952 on a lecture tour before 8 of the local sections of the Institute); National Research Council of Canada (Ottawa), January 1953. He received the following research grants: Office of Ordnance Research, Washington, D. C.; Corn Industries Research Foundation, New York; E. I. duPont de Nemours and Company, Inc., Wilmington, Delaware; and U. S. Department of Agriculture, Washington, D. C.

Lloyd L. Smith, Jr., served as chairman, Aquatic Life Advisory Committee, Ohio River Valley Water Sanitation Commission.

Leon C. Snyder received honorary life membership, Minnesota Horticultural Society, September 1953; served the Society as chairman, Plant Minnesota Committee, and Tree and Shrub Committee; and member, Budget and Policy Committee and Executive Committee.

Olaf C. Soine served as secretary-treasurer, Board of Managers, Red River Valley Winter Shows, Inc., 1953-54; superintendent, Crops Show, Red River Valley Winter Shows and Northwest School Farmers' Week, Crookston, 1952-54; and superintendent, Sunday School, Trinity Lutheran Church, Crookston, 1953-54.

Dale K. Sorensen was elected to the Society of the Sigma Xi, 1954.

Francis A. Spurrell was elected to the Society of the Sigma Xi, 1954.

Richard J. Stadtherr served as chairman, Tree and Shrub Committee, member, Committee on Ethical Advertising, member, Special Awards Committee, and member, Plant Minnesota Committee, Minnesota Horticultural Society, 1953-54.

Elvin C. Stakman received the honorary D.Sc. degree as follows: University of Rhode Island, May 1953; University of Wisconsin, June 1954; and University of Minnesota, June 1954. He served as member, and member, Executive Committee, U. S. National Science Board, 1953; member and chairman, Advisory Committee on Biology and Medicine, U. S. Atomic Energy Commission, 1953-54; member, U. S. National Commission, UNESCO, 1953 and 1954. He was member, Council, and member, Committee on John J. Carty Fund, National Academy of Sciences, 1953 and 1954; chairman, Committee on Science in UNESCO, 1953 and 1954, member, committee to work with IUBS, member, Lilly Fellowship Board, 1953 and 1954, and member, Committee on Sanitary Engineering and Industrial Hygiene, Division of Medical Sciences, National Research Council, 1953 and 1954. He served as member, Agricultural Board, 1953 and 1954, and chairman, Subcommittee on Aerobiology, and member, Committee on Plant and Crop Ecology, Division of Biology and Agriculture, National Academy of Sciences and National Research Council, 1953 and 1954; chairman, Committee on International Cooperation, 1953 and 1954, and member, Committee on Plant Disease Prevention, American Phytopathological Society, 1953-54; and panel member, Symposium on Genetics of Pathogenic Fungi, American Institute of Biological Societies, Madison, Wisconsin, September 1953; and member, International Wheat-Stem-Rust Conference, 1953.

Louise A. Stedman was elected honorary member, Phi Upsilon Omicron, 1954; and was elected by home economics students as "Miss Betty," 1954. She served as secretary, Home Economics Administrators of Research, North Central Region; chairman, Research Section, Division of Home Economics, Association of Land-Grant Colleges and Universities; and national secretary, Omicron Nu.

Clarence M. Stowe was recipient of a research grant from Sharp and Dohme. He was elected to the Society of the Sigma Xi in 1954.

John Strait served as secretary-treasurer, Minnesota Section, American Society of Agricultural Engineers, 1953-54.

Harold B. Swanson served as president, American Association of Agricultural College Editors, 1953-54; member, Board of Control, National Project in Agricultural Communications, 1953-54.

Milo H. Swanson served as member, North Central Regional Committee on Poultry Products Technology Research; member, Minnesota Poultry Industry Council; and member of the Council's State Fair Exhibit Committee. He was elected to membership in the Society of the Sigma Xi.

Matthias A. Thorfinnson received an appointment to spend six months in Iceland in connection with a project sponsored by the Foreign Operations Administration, 1954.

Marjorie H. Thurston was a member, Subcommittee on Housing, Joint Committee for Equal Opportunity, City of Minneapolis, 1953-54.

Orrin C. Turnquist was elected secretary, Minnesota Vegetable Growers' Association, 1953-54; served as editor, Minnesota Vegetable Growers' Letter, 1953-54; was regional adviser, North Central U. S. National Junior Vegetable Growers' Association, 1952-54; and served as chairman, Youth Committee, and chairman, Vegetable List Committee, Minnesota State Horticultural Society, 1953-54.

Ralph Wayne served as adviser to State Committee on Dairy Standards, 1953-54; and member, State Committee, "June Dairy Month," 1954.

Alvin F. Weber was elected to Phi Zeta, 1953.

Richard E. Widmer served as program chairman, Minnesota Commercial Flower Growers Committee; program co-chairman, Annual Florists' Short Course; and editor, Minnesota State Florists' Association.

Ralph E. Williams served as director, Apollo Club.

James D. Winter received research grant from the Bakelite Company, New York. He served as chairman, Post-Harvest Physiology Committee, American Society of Horticultural Science; chairman, Fruit List Committee, Minnesota State Horticultural Society; executive secretary-treasurer, Minnesota Fruit Growers Association; and member, Executive Committee, and secretary, North-Central Regional Fruit and Vegetable Technical Committee. He served as editor, *Minnesota Apple News* (St. Paul); consulting editor (packaging-wrapping) *Frozen Food Center* (St. Louis); and orchard and garden editor, *The Farmer* (St. Paul).

Laurence M. Winters received special grants as follows: Eli Lilly Fellowship (doctorate and post-doctorate); Louis W. and Maud Hill Family Foundation; and Hormel Institute. He served as member, Animal Breeding and Genetics *ad hoc* Committee (appointed by the Agricultural Board of the Research Council).

Raymond S. Wolf received "Public Interest Award" from National Safety Council for outstanding contributions in promotion of farm safety for fourth successive year, 1953; was awarded honorary State Farmer degree from State Future Farmers of America, 1954; received Twin City Advertising Club-American Federation of Television and Radio Artists Award for "Best Farm Radio Program" in Twin City Area, 1953; served as member, Television Committee, American Association of Agricultural College Editors, 1953-54; and as chairman, Radio Section, Minnesota Safety Council, 1952-54.

Charlotte Wolff served as chairman, Eighth Conference of College Teachers of Textiles and Clothing, Central Region (Chicago), 1952-53; and was awarded the first Home Economics Association Doctoral Research Fellowship, 1954.

Donald Z. Woods served as member, Editorial Board, *Journal of Communication*, 1954.

**College of Medical Sciences**—Paul Adams, Jr., received an award for best scientific exhibit (with Dr. Ray Anderson), Southern Minnesota Medical Association, State Medical Meeting, Duluth, 1954.

Ray Amberg was trustee, American Hospital Association, 1952-54; member, Committee on Veterans Affairs, 1952-54; regent and member, Executive Committee, American College of Hospital Administrators, 1953-54. He served as chairman, State of Minnesota Hospital Planning and Construction Committee, 1952-54; member, Committee on Hospital Registration, 1952-54, member, Committee on Registration of Hospital Administrators, 1952-54, Minnesota Department of Health; president, Minnesota Tuberculosis and Health Association, 1952-54; chairman, Committee on Government Relations, Minnesota Hospital Association, 1952-54; member, Advisory Committee, Minnesota Congress of Parents and Teachers, 1952-54; and member, Advisory Board, Minnesota Camp Fire Girls, 1952-54.

Gaylord W. Anderson was consultant, World Health Organization and chief, Teaching Mission to Egypt, February-March 1953; consultant, Mission to Korea, U. S. Foreign Operations Administration, February-March 1954; member, Pan-American Sanitary Congress, Havana, Cuba, September 1952. He was president, 1952, chairman, Sedgwick Medal Committee, 1953 and 1954, member, Lasker Award Committee, 1952-54, member, Executive Committee,

1952, American Public Health Association; president, Association of Schools of Public Health, 1952-54; chairman, Committee on Administrative Procedure, American Trudeau Society; member, Cancer Control Committee, National Institutes of Health; member, Board of Editors, *Public Health Reports*, U. S. Public Health Service; consultant on medical intelligence to Surgeon General, U. S. Army; member, Committee on Army Medical Education, National Research Council; member, Advisory Committee on Health, Foreign Operations Administration; member, Board of Trustees, American Board of Preventive Medicine. He was chairman, Poliomyelitis Advisory Committee, Minnesota State Department of Health; chairman, Medical Advisory Committee, Hennepin County Chapter, National Foundation for Infantile Paralysis; president, St. Paul Figure Skating Club; vice-chairman, St. Paul Pops Concert Committee; member, Board of Directors, Minnesota Public Health Association; member, Executive Committee, Health and Medical Care Section, Council of Social Agencies, Minneapolis; member, St. Paul Health Council.

Lois D. Anderson served as member, Program Committee, Third District Minnesota Nurses' Association, 1952-54; member, Evaluation and Guidance Committee, Minnesota League for Nursing, 1952-54; member, Psi Chi, 1952; and president, Zeta Chapter, Sigma Theta Tau, 1953-54.

Ray C. Anderson was elected member, Board of Directors, American Society of Human Genetics, 1953. He received the Southern Minnesota Medical Association Award (with Dr. Paul Adams), State Medical Meeting, Duluth, 1954.

Richard W. Anderson served as chairman, Subcommittee on Medical and Psychological Services, Citizen's Advisory Committee on Penal Reform, 1952-53.

Wallace D. Armstrong was member, National Advisory Dental Research Council, U. S. Public Health Service; member, Dental Research Advisory Committee, U. S. Army; chairman, Josiah Macy, Jr., Foundation Conference on Metabolic Interrelations, 1953. He received research grants from the following: U. S. Public Health Service, 1952-54; Office of the Surgeon General, Department of the Army, 1952-54; U. S. Atomic Energy Commission, 1952-54. He served as consultant, Los Alamos Scientific Laboratory, Los Alamos, New Mexico.

Abe B. Baker was chairman, Training Grants Committee and member, Research Grants Committee, National Institute of Neurological Diseases and Blindness; chairman, National Committee for Research in Neurological Disorders; member, Medical Advisory Committee, Minnesota Department of Public Welfare; member, Medical Advisory Board, National Multiple Sclerosis Society; member, Medical Advisory Board, United Cerebral Palsy Association; chairman, Medical Advisory Board, Minnesota Multiple Sclerosis Society. He was president, Minnesota Society of Neurology and Psychiatry; chairman, Special Courses Committee, American Academy of Neurology; chairman, Public Relations Committee, American Neurological Association. He received grants from: the Teagle Foundation, United States Public Health Service, and the National Foundation for Infantile Paralysis.

Cyrus P. Barnum, Jr., was elected president, Minnesota Branch, Society for Experimental Biology and Medicine, 1954. He received research grants from the American Cancer Society, 1952, 1953, and 1954; U. S. Public Health Service, 1952, 1953, and 1954.

Reuben Berman received a grant from private citizens of Minneapolis for research in coronary disease (with Ancel Keys, Ernst Simonson, and Jack Friedman).

John J. Bittner was re-elected, Board of Directors, and 2nd vice president, Minnesota Division of the American Cancer Society. He received research grants from the Minnesota Division, American Cancer Society, U. S. Public Health Service, and the American Cancer Society.

Joseph F. Borg was elected a fellow, American College of Physicians, 1953.

Herbert N. Bosch was member, 1952-54, vice president 1954, member, expert panel on Environmental Sanitation, World Health Organization, 1952-54; member, Committee on Sanitary Engineering and the Environmental, chairman, Subcommittee on Waste Disposal, National Research Council, 1952-54; served as consultant to Surgeon General, Department of the Army;

consultant, governments of Yugoslavia and Finland, World Health Organization, summer of 1952; consultant, Sanitary Engineering, and lecturer, Army Medical Service Graduate School, Walter Reed Army Medical Center, 1953-54; member, Committee on Professional Education, American Public Health Association, 1952-54; served as referee, professional qualifications of sanitary engineers and sanitarians; and was consultant, Institute of Inter-American Affairs (FOA), in Brazil, June 1954.

Helen W. Bowditch served as chairman, Civil Service Committee, Minnesota Nurses' Association, 1952-54; member, Sub-Committee, Governor's Advisory Committee on Mental Health, 1952-54; member, Minnesota State Civil Service Examining Board, 1952-54; and served by request on examining panel, Minneapolis Civil Service Commission, 1953.

Edward A. Boyden was honored by publication of Vol. 118 of the *Anatomical Record* (March, April, May, June, 1954) in celebration of his 68th birthday and in recognition of his contributions to anatomy and his 20 years service (1928-48) as managing editor of the *Anatomical Record*.

John F. Briggs served as regent, and chairman, Section on Cardiovascular Diseases, American College of Chest Physicians; chairman, Committee on Tuberculosis, Minnesota State Medical Association; associate editor, *Minnesota Medicine*, Minnesota State Medical Association; president, Minnesota Society of Internal Medicine, 1953-54; secretary, Section on Diseases of the Chest, American Medical Association; member, Board of Directors, Minnesota Heart Association; member, Board of Directors, Minnesota Tuberculosis and Health Association; member, Board of Directors, Ramsey County Tuberculosis Association; member, Doctors' Round Table (sponsored by the Minnesota State Medical Association and the Minnesota Heart Association), WCCO-TV. He was elected to honorary membership, Tuberculosis Society, Chile, S.A.; honorary membership, Section of Diseases of the Chest, Pan-American Medical Association.

Jerome W. Brower was president, American Association of Registration Executives; and president, Minnesota Chapter, American Society for Public Administration.

Ernest B. Brown, Jr., was consultant, United States Air Force School of Aviation Medicine, Randolph Field, April 1954. He received a research contract from the United States Air Force, School of Aviation Medicine, Randolph Field, 1953-54.

Josef M. Brozek was associate editor, *Nutrition Reviews*, 1952-54; associate editor and book review editor, *Human Biology*, 1953-54; visiting research worker, Institute for Industrial Hygiene, Zagreb, May to November 1953; secretary, Committee on Nutritional Anthropometry, National Research Council, 1952-54; chairman, Nationalities Council, and vice president, International Institute, St. Paul, 1954. He was invited lecturer, Third International Congress of Nutrition, Amsterdam, September 1954.

Hallie Bruce served on Minneapolis civil service examining board for pharmacists, 1952-54. He served as secretary-treasurer, Minnesota Hospital Pharmacists' Association, 1954; and member, Executive Committee, Northwest Branch, American Pharmaceutical Association, 1952-53.

Berry Campbell was elected member, Association of Anatomists of Great Britain and Ireland, 1954.

Orwood J. Campbell was named president-elect, Minnesota State Medical Association, 1953.

Gilbert Campbell was awarded a Markle Foundation Scholarship, March 1954.

James B. Carey, Sr., served as associate editor and chairman, Editorial Board, *Modern Medicine*, Minneapolis, Minnesota.

Charles W. Carr received research grants from the U. S. Public Health Service, 1952, 1953, and 1954.

Saul L. Cohen received research grants from the U. S. Public Health Service, 1952, 1953, and 1954.

Audrey Coulter served as program chairman, 1952-53, president, 1953-54, Twin City Dietetic Association; member, Telephone Committee, 1952-53, St. Paul Chapter, American Association of University Women; member, Minnesota Nutrition Council, 1953-54; publicity chairman, Careers in Home Eco-

nomics Workshop, Minnesota Dietetic Association and Home Economics Association 1953-54; and chairman, Scholarship Committee, Minnesota Dietetic Association, 1954.

James R. Dawson, Jr., served as member, Hennepin County Neonatal Mortality Study Committee, 1952-54.

Katharine J. Densford was awarded a Centennial Citation, outstanding "Woman of Minnesota," Hamline University, May 1954. She served as second vice president, International Council of Nurses, 1952-54; parliamentarian, Minnesota Division, American Association of University Women, 1952-54; chairman, Committee on Careers in Nursing, Third District, Minnesota Nurses' Association, 1953-54; member, Special Medical Advisory Group, Veterans Administration, 1952-53; and member, Health and Hospitals Committee, Citizens League of Greater Minneapolis, 1952-53.

Harold S. Diehl served as member, United States Delegation to Seventh World Health Assembly, Geneva, Switzerland; vice-chairman, Health Resources Advisory Committee, United States Office of Defense Mobilization, Washington; vice-chairman, National Advisory Committee to Selective Service on Administration of "Doctors Draft Act"; member, Council on National Emergency Medical Service, American Medical Association; and chairman, Committee on Hospitals and Medical Education, Minnesota State Medical Association.

Hal Downey was honored on May 27-29, by the dedication to him of a three-day "Conference on Leucocytic Functions" held in New York under the auspices of the New York Academy of Sciences.

Stephan Epstein was elected to the editorial board, *Kosmetische Medizin*, Berlin, Germany.

Isadore Fisher served as vice president, Minnesota Dermatologic Society, 1952-53.

Dean S. Fleming served as secretary, Minnesota Public Health Conference.

Edmund B. Flink was member, Editorial Board, *Postgraduate Medicine*; selected one of "100 News-makers of Tomorrow," Minneapolis Area, September 1953; elected to membership, Endocrine Society of America, 1952; local chairman, Postgraduate Assembly in Endocrinology and Metabolism, September 1953; president, Central Clinical Research Club, 1953-54. He was elected to American College of Physicians (associate), 1953.

Marthella J. Frantz received a grant from the Minnesota Division, American Cancer Society, 1953-54; and participated in a panel discussion of the cancer problem, Minnesota Division, American Cancer Society, February 1954.

Esther Freier served as associate editor, *American Journal of Medical Technology*, 1953-54.

Paul Frick was awarded a U. S. Public Health Service Grant, 1953-54.

Ernst Gellhorn lectured at Veterans Administration Hospitals in Colorado, Texas, California, New Mexico, and New York; and lectured also at the University of Kansas. He received a grant from Naval Ordnance.

David Glick was member, Panel on Cytochemistry, Section on Biophysics, Committee on Growth, National Research Council; served as editor, *Methods of Biochemical Analysis*; associate editor, *Journal of Histochemistry and Cytochemistry*. He delivered the Henry A. Mattill Memorial Lecture, State University of Iowa, November 16, 1953; and presented special lectures at Carlsberg Laboratory, Copenhagen, Denmark, March 8, 1954, Physiological Society, Karolinska Institutet, Stockholm, Sweden, March 19, 1954, Karolinska Institutet Hospital, Stockholm, Sweden, March 24, 1954, and Institute for Medical Chemistry, University of Uppsala, Uppsala, Sweden, March 27, 1954. He received research grants from U. S. Public Health Service, 1952, 1953, and 1954; U. S. Air Force, 1952-54; and American Cancer Society, 1953-54.

Robert A. Good served as secretary-treasurer, McQuarrie Pediatrics Fund, 1954. He delivered the Kathryn Baird Memorial Lecture, Milwaukee, Wisconsin, November 1952; and was selected one of 100 outstanding young men of Minneapolis, 1953.

Eugene D. Grim was named one of the 14 outstanding medical school teachers and researchers in the nation, 1954. As part of the award, he received

a three-year grant from the Lederle Laboratories, American Cyanamid Company.

Ruth E. Grout was consultant, Regional Office for Europe, World Health Organization, 1952 and 1953; assisted with the planning and conduct, and edited the report, European Conference on Health Education of the Public. She taught in the School of Hygiene, Ankara, Turkey; was chairman, Public Health Education Section, American Public Health Association, 1952-53; was member, Joint Committee on Health Problems in Education, National Education Association and the American Medical Association; was secretary, Council of National Organizations, Adult Education Association, 1952-54; was honorary member, Norske Kvinners Sanitetsforenings (the women's public health association of Norway). She received a special citation in health education from the City of Paris at the meetings of the International Union, May 1953.

Paul S. Hagen received a research grant from Eli Lilly Company, May 1954.

Wendell H. Hall served as chief, Clinical Laboratory Service, Veterans Administration Hospital, Minneapolis, Minnesota, 1952-54; chairman, Subcommittee on Laboratory Methods, 12th Veterans Administration Army-Navy Conference, 1953; chairman, Sub-Committee on Laboratory Protocols, 13th Veterans Administration Army-Navy Conference, 1954; member, Laboratory Committee, American Trudeau Society, National Tuberculosis Society, 1952-53; member, Editorial Board, *Journal of Laboratory and Clinical Medicine*, 1952-54; and member, Consultation Committee, Minnesota Trudeau Society, 1954.

Borghild Hansen served as secretary, Minnesota Rehabilitation Association, 1954.

J. Francis Hartmann was elected to honorary membership, Minnesota Academy of Restorative Dentistry; received a U. S. Public Health Service Research Grant for 1953 and 1954.

Donald W. Hastings served as chairman, Aero-Medical Panel, U. S. Air Force Scientific Advisory Board; chairman, Governor's Advisory Council on Mental Health; chairman, Medical Policy Committee, Department of Public Welfare, State of Minnesota; consultant, Advisory Panel on Medical Sciences, Research and Development Division, Department of Defense; and member, Board, Foundation for Research and Training in Psychiatry.

Starke R. Hathaway received a U. S. Public Health Service Grant (with Elio D. Monachesi); and was awarded a Certificate of Merit, Ohio University Alumni Association, June 1954.

Elmer M. Hill was area consultant in dermatology, Veterans' Administration; consultant in dermatology, state institutions at Cambridge and Fari-bault; and secretary-treasurer, Minnesota Dermatological Society.

Fred W. Hoffbauer was associate member and deputy director, The Commission on Liver Disease, Armed Forces Epidemiological Board; editor, Conference on Liver Injury, Josiah Macy, Jr. Foundation, New York, New York. He received a special research grant (with Cecil J. Watson).

Ruth Hovde served as member, Board of Directors, and president-elect, American Society of Medical Technologists, 1953-54; member, National Committee on Careers in Medical Technology, 1953-54; and member, Board of Registry of Medical Technologists, American Society of Clinical Pathologists, 1953-54.

Robert B. Howard served as zone director, Office of Civil Defense, 1952-54. He was selected as member, Board of Editors, *Minnesota Medicine*; elected to membership, American College of Physicians, April 1954; and selected as member, Committee on Continuation Medical Education, Association of American Medical Colleges, November 1953.

Reynold A. Jensen served as member, Membership Committee, 1952-54, member, Program Committee, 1953-54, American Orthopsychiatric Association; member, Committee on Medical Education, American Psychiatric Association, 1954; member, Program Commission, Association for Research in Nervous and Mental Disease, 1954; member, Board of Directors, 1954, and chairman, Research Committee, 1954, Council of Special Education Service; member, Advisory Council, 1952-54, and member, Health Committee, 1952-54, Governors Conference on Children and Youth; member, Minnesota Committee

of Sponsors, Mental Hospital Services, American Psychiatric Association, 1954; member, Medical Section, Advisory Board of the American Child Guidance Foundation, 1954; and member, Advisory Board, Minneapolis Chapter, Minnesota Society for the Mentally Retarded, 1952-54.

Winifred P. Johnson served as president, Minnesota Occupational Therapy Association, 1952-54.

William A. Jordan was member, Board, American Board of Dental Public Health; and vice president, State and Territorial Directors Association.

Irwin H. Kaiser served as organizer, Gynecological Service, Anoka State Hospital. He received a research grant from the Louis W. and Maud Hill Family Foundation.

Byrl J. Kennedy received a research grant from the U. S. Public Health Service, 1953-54.

Ancel Keys was member, Committee on Research, member, Committee on Medical Certification of Causes of Death, American Public Health Association; was member, Committee on Dietary Allowances, Food and Nutrition Board, chairman, Committee on Nutritional Anthropometry, and panel member, Committee on Growth, National Research Council. He served as member, Executive Committee, Council on Community Service and Education, member, Board of Directors, member, Nominating Committee, member, Research Committee Scientific Council, and chairman, Research Committee Council on Community Service and Education, American Heart Association. He was expert panel member, FAO, WHO, UNESCO, and member, joint FAO/WHO Expert Committee on Nutrition, United Nations. He served as member, Editorial Boards of *Geriatrics*, *Modern Medicine*, *Journal-Lancet*, *American Journal of Physiology*, and *Journal of Applied Physiology*. He was named to "Men of Minnesota."

Samuel P. Kingston was appointed to the Rochester City Board of Health and Welfare.

Helen L. Knudsen was member, Governor's Commission on the Aging; member, Public Health Nursing Committee, Minnesota State Medical Association; member, Board of Directors, Visiting Nurse Service, Minneapolis; secretary, Association of Hospital Planning Agencies; and member, Subcommittee on the Study of Facilities for Care of the Long-Term Patient, Commission on Chronic Illness.

Frederic J. Kottke served as chairman, Minnesota State Physical Therapist Examining Committee; member, Editorial Board, *Archives of Physical Medicine and Rehabilitation*; chairman, Committee on Legislation, 1953-54, member, Committee on Advances in Education, 1952-54, American Congress of Physical Medicine and Rehabilitation; and member, Advisory Committee on Education, Council on Physical Medicine and Rehabilitation, American Medical Association, 1952-54.

Frank H. Krusen received the second annual physician's award of President Eisenhower's Committee on Employment of the Physically Handicapped, 1954.

William G. Kubicek received a special award (silver medal) (with Frederic J. Kottke), American Congress of Physical Medicine and Rehabilitation, 1952. He received research grants from the U. S. Public Health Service, 1952, 1953, and 1954 and United States Air Force, 1952, 1953, and 1954. He served on an Advisory Committee, National Foundation for Infantile Paralysis.

Herman C. Lichstein served on the Advisory Board, Methods of Biochemical Analysis; consultant, Biology Division, Oak Ridge National Laboratory; president, North Central Branch, Society of American Bacteriologists, 1954; secretary, Minnesota Chapter, Society for Experimental Biology and Medicine, 1953; and was elected fellow, American Association for the Advancement of Science.

Nathan Lifson received a grant from Life Insurance Medical Research (Grant #G-52-33) and from the U. S. Public Health Service.

Victor Lorber received a grant from the U. S. Public Health Service. He served as career investigator, American Heart Association.

Paul T. Lowry received a research grant from the Louis W. and Maud Hill Family Foundation, 1953-54.

Francis W. Lynch served as vice president, Society for Investigative Dermatology; and member, American Board of Dermatology and Syphilology.

John F. Madden was elected to Board of Directors, American Academy of Dermatology and Syphilology; vice president, American Academy of Dermatology and Syphilology; and member, Executive Committee, Ancker Hospital, St. Paul, Minnesota.

William F. Maloney was member, Editorial Board, *Journal-Lancet*, 1954. Angeline Mannick was president-elect, Twin City Dietetic Association, 1954.

Carlos Martinez received a research grant from the American Cancer Society.

John R. Meade served as chairman, Committee on Diabetes Mellitus, Minnesota State Medical Association.

James S. McCartney served as president, Minnesota Board of State Examiners in the Basic Sciences, 1952-54; and adviser, Committee for the Study of a Medical Examiners System, Hennepin County Attorney's Office.

John L. McKelvey served as advisory editor, *American Journal of Obstetrics and Gynecology*; and was an active member, Minnesota Maternal Mortality Committee. He presented the Porter Lectures, University of Kansas Medical School and University of Kansas at Lawrence, Kansas.

C. A. McKinlay served as secretary, Minnesota Medical Service, Inc.; was appointed member, Executive Committee, Minnesota Tuberculosis and Health Association; and was elected to membership, Minnesota Academy of Medicine.

Irvine McQuarrie served as president, Minnesota Heart Association 1953-54; president, American Pediatric Society, 1953. He was one of ten physicians to receive the Award for Distinguished Achievement by Board of Editors, *Modern Medicine*, 1954. He was chosen to represent the field of pediatrics in First Western Hemisphere Conference, World Medical Association; and was contributor to "Seventy-Five Years of Medical Progress, 1878-1953." He was elected to honorary membership in: Sociedad Uruguaya de Pediatria, Sociedad Chilena de Pediatria, Sociedad Peruana de Pediatria, Sociedad Argentina de Pediatria, Sociedad Brasileira de Pediatria, British Paediatric Association, and Societe de Pediatrie de Paris.

Henry Michelson was elected honorary member, German Dermatological Society; gave the annual address, Medical-Chirurgical Society in Montreal, Quebec, February 1954; and gave the William Allen Pusey lecture, Chicago Institute of Medicine, September 1953.

Marion I. Murphy served as vice chairman, Collegiate Board of Review, Accrediting Service, and was chairman, Committee on Public Health Nursing Education, National League for Nursing; chairman, Committee on Resolutions, Public Health Nursing Section, American Public Health Association; and chairman, Department of Public Health Nursing, Minnesota League for Nursing. She received a World Health Organization scholarship for travel in Latin-America during the summer of 1953.

Jay A. Myers was consultant in tuberculosis, Veterans Administration Hospital, Minneapolis; chief, Tuberculosis Service, Minneapolis General Hospital; editor-in-chief, *Diseases of the Chest*; member, Committee on Tuberculosis, Minnesota State Medical Association; member, Board of Directors, National Tuberculosis Association; chairman, Section on Diseases of the Chest, American Medical Association; and chairman, Program Committee, and member, Executive Committee, Minnesota Tuberculosis and Health Association. He received the honorary degree, doctor of laws, from Ohio University, Athens, Ohio, June 13, 1954. He was recipient of a research grant from H. Longstreet Taylor Foundation.

Theodore A. Olson was member, Aquatic Life Advisory Committee, Ohio River Sanitation Commission; member, Vector Control Committee, and member, Standards Methods Committee, American Public Health Association; and member, Sanitation Study Section, Research Grants Division, National Institutes of Health, United States Public Health Service.

Wilford E. Park was president, The Minnesota Academy of Occupational Medicine and Surgery; and was featured as "Town Topper" in the *Minneapolis Star* on November 4, 1953.

Thomas A. Peppard served on Editorial and Publishing Committee, *Minnesota Medicine*.

Andrew T. Rasmussen was honored by dedication of Vol. 99 of the *Journal of Comparative Neurology* (August, October, December, 1953) in recognition of his outstanding contributions to neuroanatomy.

Harold G. Ravits was assistant editor, *Quarterly Review of Allergy and Applied Immunology*; and secretary-treasurer, Minnesota Dermatological Society, 1952-53.

Leo G. Rigler was awarded the Gold Medal of the Radiological Society of North America (for distinguished service to radiology), 1953; was awarded Honorable Mention for Exhibit at the American Medical Association Meeting, San Francisco, 1954. He served as trustee, American Board of Radiology; member, Advisory Commission, Minnesota State Department Public Welfare, 1953-54; associate editor, *Radiology*, 1953-54; member, National Advisory Board Hadassah Medical Organization, 1953-54; member, National Board of Directors, American Friends of the Hebrew University, 1953-54; member, Editorial Boards of *Surgery* and of *Diseases of Chest*; elected vice chairman, Radiological Section, American Medical Association, 1954; appointed member, Radiological Section, National Research Council, 1954; and gave the Ross Golden Lectureship, Columbia University and New York Roentgen Ray Society, 1954.

Jean Roberts was member, Research Advisory Committee, Community Welfare Council; member, Census Tract Committee; member, Rehabilitation Study Committee (Hennepin County); and member, Public Health Nursing Study Committee (Hennepin County).

George C. Roth served as vice president, and president-elect, Minnesota Trudeau Society; and member, Executive Committee, Board of Directors, Ramsey County Tuberculosis and Health Association.

Clarence J. Rowe was vice chairman, Social Casework Committee, St. Paul Area Community Chest, 1954; member, Board of Directors, Mental Health Institute, St. John's University, 1954; and member, Mental Health Committee, St. Paul Area Public Health Council, 1953.

Burtrum C. Schiele served as psychiatric consultant, U. S. Veterans' Hospital, St. Cloud; set up class of instruction in basic psychiatry for the sub-professional staffs, St. Cloud Veterans' Hospital and Fort Mead, South Dakota Veterans' Hospital; was member, Governor's Advisory Council on Mental Health; chairman, Subcommittee on the Housing of the Aged Mentally Ill; chairman, Governor's Advisory Council on Aged; and member, Board, Hennepin County League of Planned Parenthood.

Rudi Schmid was elected to membership, Central Society for Clinical Research, Chicago, 1953; and was awarded a special research fellowship, U. S. Public Health Service, January 1954.

William Schofield served as chairman, Subcommittee on Classification and Orientation, Governor's Advisory Committee on Penal Reform; and research consultant, Cooperative Program in Educational Administration, Pacific Southwest Center, School of Education, Stanford University (California).

Alvin L. Schultz was elected to membership, American Federation for Clinical Research, June 1954.

Samuel Schwartz was elected to membership, American Society for Clinical Investigation and New York Academy of Sciences. He received a grant from the Atomic Energy Commission; was invited by Ciba Foundation to attend Conference on Porphyrin Synthesis in London, February 1955; and was appointed research consultant, Mount Sinai Hospital, Minneapolis.

John F. Shrouts was president, Minnesota Academy of Occupational Medicine.

Richard T. Smith received a National Research Council Fellowship, 1952-53.

Mitchell Spellman was awarded Markle Foundation Scholarship, 1954.

Wesley W. Spink was expert consultant on brucellosis, Government of Spain, World Health Organization and Food and Agriculture Organization of the United Nations, September-October 1952; member, Joint FAO/WHO Expert Committee on Brucellosis in Florence, Italy, October 1952; twenty-ninth James M. Anders Lecture, College of Physicians of Philadelphia, April 1, 1953. He received research grants from Charles Pfizer Co., 1952, E. R. Squibb and Sons, 1953, Eli Lilly and Company, 1952 and 1953, Burroughs Wellcome

and Company, 1952, Lederle Laboratories, 1952, 1953, and 1954, Winthrop-Stearns, Inc., 1952, Merck & Company, Inc., 1954, World Health Organization, 1953, and Schenley Laboratories, Inc., 1952.

Jeanne Staublin was member, Program Planning Committee, Twin City Dietetic Association, 1953-54.

James W. Stephan was vice chairman, Steering Committee, Hospital Nursing Division, National League for Nursing; treasurer and member, Board of Trustees, Minnesota Hospital Association; member, Board of Trustees, Minnesota League for Nursing; chairman, Minneapolis General Study Committee, Citizens' League of Greater Minneapolis; and member, Executive Board, Washburn District Parent-Teacher Association.

Stewart C. Thomson was co-chairman, Committee on Educational Potentialities, College Health Program, National Conference on Health in Colleges; member, Board of Directors, Westminster Foundation of the State of Minnesota; and treasurer, Minnesota Public Health Conference.

R. Dorothy Sundberg was elected to associate membership, European Society of Hematology; and was elected a fellow, American Association for the Advancement of Science, 1953.

Jerome T. Syverton served on the Editorial Board of: *Bacteriological Reviews*, *Cancer Research*, and *Proceedings of the Society for Experimental Biology and Medicine*. He was consultant to the Surgeon General, Microbiology Study Section, U. S. Public Health Service; member, Board of Directors, Minneapolis War Memorial Blood Bank; member (representing American Association of Pathologists and Bacteriologists), Board of Trustees, American Type Culture Collection; and official delegate, Third International Poliomyelitis Congress, Rome, 1954.

Lewis Thomas was consultant, Surgeon General, Department of the Army, 1952-54; member, Commission on Acute Respiratory Diseases, Armed Forces Epidemiological Board, 1952-54; member, Research Committee, American Heart Association, 1952-54; delivered Annual Janeway Lecture, Mount Sinai Hospital, New York, March 1953. He received research grants from the U. S. Public Health Service, 1952, 1953, and 1954, Armed Forces Epidemiological Board, 1952-54, and received a travel grant from Rockefeller Foundation for a visit to research laboratories in England, France, Belgium, Holland, and Denmark, 1953.

Fae Y. Tichy received a U. S. Public Health Service grant.

Alan E. Treloar was consultant, Public Health Service; member, Public Health and Sanitation Study Section, National Institutes of Health, 1954; and chairman, Statistics Section, American Public Health Association, 1953-54.

Henry L. Ulrich was voted "The Physician of the Year" by Hennepin County Medical Society, September 1953. He received the St. Barnabas Bowl, and was honored with a plaque by the Hennepin County Tuberculosis Society, December 1953, commemorating him as a founder and worker in the fight against tuberculosis.

Maurice B. Visscher served as secretary, International Union of Physiological Sciences; member, Board of Directors, American Cancer Society; member, Board of Directors, American Heart Association; member, Board of Publication Trustees, American Physiological Society; member, Board of Directors, *Annual Reviews*; president, Board of Trustees, *Biological Abstracts*; member, National Science Foundation Committee on Post-doctoral Selection, National Research Council; member, Board of Directors, Minnesota Heart Association; was elected vice president, National Society for Medical Research; delivered the Science Club of Winnipeg annual lecture 1954. He received grants from the United States Public Health Service, 1952, 1953, and 1954.

Lewis W. Wannamaker served as member, Committee on Prophylaxis of Streptococcal Infections, and member, Committee on Troop Housing and Space Allowance, Armed Forces Epidemiological Board. He gave a symposium lecture, "Epidemiology of Streptococcal Infections, New York Academy of Medicine, February 25-26, 1953; and was elected to membership, Pediatric Research Society.

Cecil J. Watson served as recorder and councillor elect, Association of American Physicians; member, council, National Institute of Arthritis and

Metabolic Disease, U. S. Public Health Service; director, Commission on Liver Disease, Armed Forces Epidemiological Board; consultant to Secretary of Defense; member, Council, Argonne National Laboratory; member, Committee on Medicine, National Research Council. He gave The Walter Estell Lee Lecture, University of Pennsylvania, 1953; California Academy of Medicine Lecture, San Francisco, 1954. He received a research contract with Surgeon General's Office, U. S. Army, 1952, 1953, and 1954; and with Atomic Energy Commission, 1953-54.

Dennis W. Watson was associate member, Commission on Immunization, Army Epidemiological Board; and member, Subcommittee on Problems of Students, Second Institute, Association of the American Medical Colleges.

Lemen J. Wells served as regional correspondent, Committee on Developmental Biology, Division of Biology and Agriculture, National Research Council, 1952-54. He received a grant from the U. S. Public Health Service, 1952-54.

Asher A. White served as president, Hennepin County Tuberculosis Association; member, Board of Directors, Minnesota Tuberculosis and Health Association; member, Board, Minneapolis Council of Social Agencies; member, Board, Northeast Neighborhood House; chairman, Committee on Special Medical Services, Minneapolis Civil Defense Agency; chairman, Committee on Radiological Safety, Minneapolis Civil Defense Agency; member, Board of Trustees, and member, Executive Committee, Eitel Hospital.

John J. Wild received the medal of the Southern Minnesota Medical Association for scientific demonstration of the echograph for diagnosing cancer, May 20, 1953.

Russell M. Wilder was director, 1952-54, and consultant, 1953-54, National Institute of Arthritis and Metabolic Diseases, U. S. Public Health Service. He served as associate editor, *Public Health Reports* (U. S. Public Health Service), 1952-54; and was awarded the Russell M. Wilder Fellowship, established by National Vitamin Foundation, September 22, 1953. He received a certificate of honorary membership, American Diabetes Association, 1954.

W. Lane Williams was given special grants from the U. S. Public Health Service and the National Heart Institute.

Robert I. Wise served as member, Committee on Standardization of Methods of Study of Staphylococci, The American Public Health Association. He gave the Minnesota Medical Foundation Lecture, Minnesota Medical Association meeting, Duluth, Minnesota, June 7, 1954.

Ragnvald S. Ylvisaker served as member, Board of Directors, Minneapolis War Memorial Blood Bank; and member, Executive Committee, Minnesota Society of Internal Medicine.

**College of Education**—Frederick P. Abel served as consultant, panel on "Reporting Pupil Progress to Parents," Regional Conference, National Education Association, 1954; and member, Committee, Minnesota Association for Supervision and Curriculum Development.

Marian C. Aitkin was elected treasurer, Biennial Conference, National Association for Nursery Education, 1953.

J. Paul Anderson was elected to the presidency of Eta Chapter, Phi Delta Kappa, 1954.

Robert J. Anderson served as chairman, Minnesota Council of Geography Teachers; member, Conservation Panel, Minnesota Council of Geography Teachers and Minnesota Council for the Social Studies, St. Paul.

Clifford P. Archer was coordinator and program officer, Education Division, The Institute of Inter-American Affairs, Technical Cooperation Administration, Washington, D. C., 1952-53; director, special education project for teachers, supervisors, and school administrators from Bolivia, Ecuador, Nicaragua and Honduras, assigned by contract with U. S. Office of Education and Foreign Operations Administration, 1954; and chairman, Yearbook Committee, Department of Rural Education, National Education Association.

Gertrude M. Baker was recipient of Honor Award and named fellow, Central District Association for Health, Physical Education, and Recreation, April 7, 1954. She served as chairman, Committee on Trends as They Affect Physical Education for Women, National Association for Physical Education of College Women, 1952-53; and vice president, Municipal Athletic Association, Minneapolis Board of Park Commissioners, 1952-54.

Robert H. Beck was elected one of Minneapolis' 100 "Leaders of Tomorrow"; and served as member, Executive Committee, Philosophy of Education Society, 1953-54.

Charles W. Boardman served as secretary, North Central Association of Colleges and Secondary Schools; and consultant in the development of guidance bulletin for pre-service high school youth, U. S. Armed Forces.

Else Bockstruck was named state chairman, Committee on International Relations, American Association for Health, Physical Education, and Recreation, 1952-53.

Clarence H. Boeck served as general chairman, Annual Spring Conference, Minnesota Science Teachers, 1954; member, Committee on Research in Secondary School Science Teaching, National Association for Research in Science Teaching; member, Committee on Science Education Section, *Dictionary of Education*, and consultant, Work-Discussion Group, Chicago, National Science Teachers' Association, 1954.

Nelson L. Bossing served as member, State Advisory Committee on Instructional Improvement, State Department of Education, 1954; vice president, Minnesota Chapter, 1951-53, and president, 1953-54, Association for Supervision and Curriculum Development; chairman, Board of Management, University Young Men's Christian Association, 1953-54; and member, Board of Directors, Minnesota State Secondary School Principals' Association.

Robert J. Brett served as secretary, Minnesota Chapter, American Association of the Teachers of Spanish and Portuguese, 1953-54.

Leo J. Brueckner was chairman, State Committee on the Study and Improvement of Education in Minnesota, 1954; and editor, *Elementary Education, Journal of Educational Research*, 1952-54.

Naomi C. Chase was a founder of the University of Minnesota Student Branch of Association for Childhood Education, International, 1954.

Theodore W. Clymer was elected to active membership in American Educational Research Association.

Walter W. Cook served as member, Committee on Studies and Standards, member, Committee on Religion in Teacher Education, and chairman, Committee on Civil Liberties and Teacher Education, American Association of Colleges for Teacher Education; chairman, Committee on Educational Psychology in Teacher Education, National Society of College Teachers of Education; consultant, Stanford University, 1953; member, Minnesota State Committee, Improvement of Instruction in the Schools of the State; and chairman, Survey Committee, for Hunter College, New York City, American Association of Colleges for Teacher Education.

E. Louise Curtis served as consultant, St. Clair County Teachers College, Belleville, Illinois, 1952; consultant, Elementary Arithmetic Committee on revision of the course of study, Minneapolis Public Schools, 1953; consultant, workshop on arithmetic, Mankato State Teachers College, 1953; consultant, study groups in arithmetic, Minneapolis Public Schools, 1953-54; and was elected as Keeper of the Records, Epsilon Chapter, Pi Lambda Theta, 1953-54.

Otto E. Domian served as director, Minnesota School Facilities Survey, State Department of Education, 1952-53; consultant, Minnesota Association of School Administrators, 1952-54; president, Minnesota Society for the Study of Education, 1954; vice president, 1953, and president, 1954, Minnesota Chapter, Horace Mann League.

Willis E. Dugan served as state chairman, March of Dimes, 1954; treasurer, 1954, and member, Executive Council, 1954, American Personnel and Guidance Association; member, Minnesota State Board of Examiners of Psychologists; and member, Executive Committee, Council on Cooperation in Teacher Education, American Council on Education, 1952-54.

Ruth E. Eckert served as member, National Advisory Committee on Presbyterian Colleges, 1952-54; member, Planning Committee, and chairman, Subcommittee on Research Studies, Commission on Colleges and Universities, North Central Association, 1953-54; member, Planning Committee, 1953-54, and chairman, Nominations Committee, 1953, National Conference on Higher Education, Association for Higher Education; vice president, 1953, and president, 1954, National Society of College Teachers of Education; and member, Advisory Committee, Swedish Hospital School of Nursing, Minneapolis, 1952-54.

Marcia Edwards was awarded the honorary doctor of science in education degree from the College of Puget Sound, 1953; served as member, Committee on High School Teacher Fellowships, Fund for the Advancement of Education, 1952-54; and vice president, American College Personnel Association, 1953-54.

Ned A. Flanders served on Governor's Council for Youth; was chairman, Citizens' Committee to Investigate a High School in Golden Valley; and consultant, Minnesota Conference, Home Economics Teachers, and State Conference, Professional Nurses Association.

Roxana R. Ford served as treasurer, National Association for Teacher Education in Home Economics; treasurer, Minnesota Council on Adult Education; chairman, Evaluation Committee (national) Omicron Nu; substitute on Home Economics Research Committee, cooperating member, Regional Research Committee, and member, Committee to Write Bulletin on Adult Education, American Vocational Association; participated in Executive Council, was chairman, Membership Committee, and president, Minnesota Vocational Association; vice president and president-elect, Minnesota Home Economics Association; member, State Advisory Board, Future Homemakers Association; chairman, Education Section, Subcommittee, Governor's Committee on Aging; and member, Fellowship Awards Committee, American Home Economics Association.

Clifton A. Gayne was member, Accreditation Committee, chairman, Constitution Revision Committee, member, Publications Committee, and chairman, Program on In-Service Relationships, St. Louis Convention, 1953, National Art Education Association; chairman, Editorial Board, 1952-54, editor, *Bulletin* (quarterly), chairman, College Teachers of Art Education Section, 1952-54, and chairman, Programs on Teacher Preparation, Grand Rapids Convention, 1954, Western Arts Association; member, Committee on Collegiate Problems of Teacher Education, and chairman, committee to formulate standards for accreditation of art education programs for teacher preparation, 1952-54, American Association of Colleges for Teacher Education.

Carl V. Goossen served as member, State Advisory Committee on Elementary Education; member, State Department Committee on Certification of Elementary Principals; chairman, Elementary Section, Midwest College Conservation Education Conference, 1952; and consultant, Regional Conference, National Education Association (Minneapolis), 1954.

Paul R. Grim served as chairman, Subcommittee on Police and Fire Protection, Citizens League of Greater Minneapolis, 1952; chairman, Program Committee, 1952-53, member, Board of Directors, 1952-54, chairman, Membership Committee, 1952-54, Minneapolis Citizens Committee on Public Education; member, Executive Committee, 1952-53, member, Committee on Accreditation, 1952-54, State Advisory Committee, Department of Education, State of Minnesota; chairman, Future Teachers of America Committee, Minnesota Education Association, 1952-54; president, 1953-54, member, Executive Committee, 1952-54, chairman, Committee on Workshops, 1954, director, Bemidji Summer Workshops (national), Association for Student Teaching; research consultant, sectional leader, group editor, Kalamazoo Conference, 1952, Miami Beach Conference, 1953, National Commission on Teacher Education and Professional Standards, National Education Association; teacher education consultant, University of Kentucky, Kentucky State Department of Education, and Kentucky Education Association, 1954; and chairman, Evaluation Committee, Ford Foundation Teacher Training Pilot Study, University of Louisville, 1954.

William R. Hastie served as chairman, College Teachers of Art Education Section, 1953-54; member, Accreditation Committee, 1952-54, general chairman, Section Meetings, St. Louis Convention, 1953, National Art Education Association; member, Council, 1952-54, chairman, Committee on State Affiliations, 1954, program consultant, Grand Rapids Convention, 1954, secretary, College Teachers of Art Education Section, 1952-54, Western Arts Association; member, committee to formulate standards for accreditation of art education programs for teacher preparation, 1952-54, American Association of Colleges for Teacher Education; and resource consultant, Workshop on Professional Education of Elementary School Teachers, 1953, Minnesota State Advisory Committee on Teacher Education.

Helen Hauptfuehrer was named secretary-treasurer, Tri-State Unit, Association for Student Teaching, 1954; and chairman, Minnesota Board of Officials, National Section on Sports for Girls and Women, 1952-54.

Marilyn N. Holland served as co-chairman, Publicity Committee for national conference, National Association for Nursery Education (Minneapolis), 1953.

Cyril J. Hoyt served as special consultant, United States Office of Education, 1954; member, Board of Directors, Minnesota Society for the Study of Education, 1952-54; and departmental co-editor, *Minnesota Journal of Education*, 1952-54.

Eloise Jaeger was chairman, Visual Aids Committee, National Section on Girls and Womens Sports, 1952; chairman, Committee on Brochure, National Association for Student Teaching, 1953-54; and chairman, Research Section, 1953-54.

Donovan A. Johnson served as mathematics curriculum consultant, Minneapolis Public Schools; member, Budget Committee, National Council of Teachers of Mathematics; member, Supplementary Publications Committee, Teachers of Mathematics; consultant, Regional Conference, National Education Association (Minneapolis); member, Board of Directors, Minnesota Council of Mathematics Teachers; chairman, Publications Committee, Council of Mathematics Teachers; member, Spring Conference Planning Committee, Council of Mathematics Teachers; and circulation editor, *Minnesota Mathematics Newsletter*.

L. Berniece Johnson was elected to Pi Lambda Theta. She received the Tozer Foundation Research Scholarship.

Palmer O. Johnson served as member, Council (senior representative, North Central District), American Statistical Association, 1952; member, Committee on Research Promotion, American Educational Research Association; consultant, Educational Policies Commission; and member, Editorial Board, and statistical editor, *Journal of Experimental Education*.

Elvet G. Jones was elected vice president, University of Minnesota Chapter of Psi Chi (honorary psychology society), 1954.

Hedda Kafka served on Membership Committee, Minnesota Vocational Association; was secretary-treasurer, Association for Student Teaching (Minnesota, North and South Dakota); committee member, Minnesota Home Economics Association, Minnesota Vocational Association, American Home Economics Association, and American Vocational Association. She was elected as Keeper of the Records in Epsilon Chapter, Pi Lambda Theta.

Mary B. Lampe was elected president, Minneapolis Association for Health, Physical Education, and Recreation, 1953-54.

Warren G. Meyer served as member, North Central Region Advisory Council for Distributive Education, United States Office of Education; state teacher-trainer, Distributive Education, State Board of Vocational Education; member, Committee on Operating Policies for the Distributive Education Division, American Vocational Association; member, Examining Board, Minnesota Civil Service; member, Executive Board, Minnesota Vocational Association; president, Minnesota Business Education Association; and vice president, Phi Chapter, Delta Pi Epsilon. He was elected to membership in Kappa Delta Pi and served as historian, Beta Delta Chapter.

William J. Micheels served as member, survey team studying Army Anti-aircraft and Guided Missiles School, Fort Bliss, Texas, 1952; vice president, member, Board of Trustees, 1953-54, National Association of Industrial Teacher Educators; member, Research Committee, American Vocational Association; member, Policy and Planning Committee, Industrial Arts Division, American Vocational Association, 1952-54; and member, Advisory Council on Industrial Arts Awards, Ford Motor Company, March 1954.

Eldon L. Modisett served as member, Audio-Visual Committee, Regional Committee, National Council for Social Studies; and business manager, *Bulletin: Minnesota Council for Social Studies*.

William J. Moonan was elected to membership in the Society of the Sigma Xi; served as consultant, experimental design and examination projects as follows: United States Naval Academy (Selection and Training of Scientific Personnel), United States Coast Guard Service (Examinations Con-

struction), and Minnesota Conservation Federation (Hunter's Safety Research Program).

Gordon M. A. Mork served as member, Board of Education, Hennepin County Independent School District No. 133, 1952-54; member, State Delegate Assembly, Minnesota Education Association, 1953-54; and consultant, Curriculum Coordinating Council, Minneapolis Public Schools, 1952-54.

Mervin G. Neale served as member, committee to revise college accrediting procedures, North Central Association of Colleges and Secondary Schools; chairman, committees appointed by Board of Review, Commission on Colleges and Universities, North Central Association of Colleges and Secondary Schools, to examine and report on the University of Arkansas, Iowa State Teachers College (Cedar Falls), DePaul University, and Illinois and MacMurray Colleges (Jacksonville).

Neville P. Pearson served as chairman, Selective Service Board #122, 1952-54; president, Twin City Film Council, 1953-54; member, Outdoor Education Committee, Minneapolis Public Schools, 1952-54; member, Regional Conference Planning Committee, 1953, National Education Association; member, Program Planning Committee for Annual Conference, Educational Film Library Association, 1954; and member program committee, Audio Visual Co-ordinators Association of Minnesota, 1952-54.

Milo J. Peterson was chairman, Program Planning Committee, 1953-54, and chairman, 1954, Central Regional Conference for Agricultural Education; superintendent, Education Department, Minnesota State Fair, 1952-54; secretary, 1953-54, chairman, 1952-53, Teacher Education Committee, Agriculture Section, American Vocational Association; consultant, Provincial Department of Education, Saskatchewan, Canada, 1954; consultant, Cooperative Project in Educational Administration, Kellogg Foundation and University of Chicago, 1952-54; member, Board of Trustees and Executive Committee, Minnesota Future Farmers of America Foundation, 1954; member, Minnesota Nutrition Council, 1952-53; member, State Citizens Committee on Public Education, 1952-54; and member, Senate Committee on Standards for Institutions Training Teachers of Agriculture, Association of Land-Grant Colleges and Universities, 1952-54.

Ray G. Price served as president, National Council on Consumer Information; and chairman, State Certification Sub-Committee. He received a research grant from Consumer's Union for Consumer Education Conference.

Maynard C. Reynolds served as chairman, Advisory Committee on Education for Mentally Retarded Children, State Department of Education, 1952-53; chairman, Midwest Region, National Association for Remedial Teaching, 1952-54; member, Board of Directors, 1954, and chairman-elect, Division on Teacher-Education, 1954, International Council for Exceptional Children; 2nd vice president, Minnesota Council for Special Education, Inc., 1954.

Elizabeth Rivers was legislative chairman, Minnesota Home Economics Association, 1953-54; and member, Constitution Revision Committee, State Nutrition Council, 1953-54.

Ella J. Rose served as regional research chairman, American Vocational Association; member, Executive Committee, Minnesota Commission on Vocational and Higher Education; regional chairman, Research Committee, American Vocational Association, and chairman, Central Region Home Economics Education Research Committee.

Philip R. Schwab served as member, Education Committee, Governor's Conference on Childhood and Youth, 1952-54.

Helen M. Slocum was member, Joint Committee on Relations with the Armed Services, American Association for Health, Physical Education, and Recreation, 1953-54; and chairman, Health Section, Central District Association for Health, Physical Education, and Recreation, 1953-54.

Homer J. Smith served as chairman (Legislative, interim), Commission on Vocation and Higher Education, State Department of Education; member, Committee of Consultants, State Civil Service Commission; consultant, Board of Education, Racine, Wisconsin. He was awarded Outstanding Service Award, American Vocational Association (among the first four out of a membership of 35,000); and was cited by Station WCCO as "Good Neighbor of the Northwest."

Helen K. Stephens served as recording secretary, Minnesota Home Economics Association.

Suzanne Tinker was secretary, Recreation Section, American Association for Health, Physical Education, and Recreation, 1952-53; secretary, Recreation Section, Central District Association for Health, Physical Education, and Recreation, 1952-53, and Editor, Minnesota Camping Association *Bulletin*.

Tracy F. Tyler received the 1954 President's Award, Association for Education by Radio-Television. He served as editor of the Association's *Journal*, 1952-54; delegate to the Fourth National Conference, United States National Commission for United Nations Educational Scientific and Cultural Organization, 1953; member, Governor's Advisory Council on Children and Youth, 1952-54; director, Minnesota Chapter, Horace Mann League of the United States, 1952-54; chairman, Advisory Committee, Minnesota School of the Air, 1952-54; consultant, Radio Committee, Minnesota Education Association, 1952-54.

Edith West served as secretary-treasurer, Minnesota Council for the Social Studies; member, Curriculum Committee, member, Nominating Committee, and chairman, panel, annual meeting, National Council for the Social Studies; and editorial assistant and consultant to State Department of Education on preparation of new guide for secondary school social studies; consultant, Social Studies, Minneapolis Public Schools, 1954.

Harold T. Widdowson served as member, Board of Interview for Civil Service position, and consultant, State Civil Service Division; state supervisor, Industrial Education, State Department of Education; chairman, Joint Committee, National Association of Industrial Teacher Educators, National Association of State Supervisors of Trade and Industrial Education; member and judge, Industrial Education "Industrial Arts Awards" program sponsored by Ford Motor Company (national, yearly program), 1952-54; judge, Industrial Arts Awards exhibit, St. Cloud, Minnesota, sponsored by Central Minnesota Industrial Education Club, 1953-54; chairman, workshop group, State Supervisors Conference, Division of Trade and Industrial Education, Minnesota Department of Education.

Marjorie U. Wilson was member, Research Council, American Association for Health, Physical Education, and Recreation, 1952-53; and chairman, Research Committee, Central District Association for Physical Education of College Women, 1952-53.

C. Gilbert Wrenn was awarded the honorary degree, doctor of literature, Willamette University, Oregon, 1952. He served as editor, *Journal of Counseling Psychology*, 1953; member, National Advisory Board, Air Training Command, United States Air Force, 1953; elected to Executive Council, Division of Counseling Psychologists, American Psychological Association, 1953; member, Committee on National Directory of Psychological Service Agencies, 1953; member, Board of Trustees, American Board of Examiners in Professional Psychology, 1952-54; member, Executive Council, 1952-53, and chairman, Committee on Publications, 1952-53, American Personnel and Guidance Association; member, Board of Directors, Minnesota Citizens Mental Hygiene Association, 1952-53; member, Minnesota State Board of Examiners in Psychology, 1952-54; consultant, Counseling Psychologist Program in Veterans Hospitals, Veterans Administration, 1953; consultant, St. Paul Public Schools, 1953; member, Curriculum Council, Minneapolis Public Schools, 1953.

Barbara H. Wright served as member, Board of Trustees, Joint Council on Economic Education, New York City; member, Steering Committee, Conference for Homemakers, 1953; member, Committee on Nursing Education, Northwestern Hospital, Minneapolis; and member, Education Committee, American Association of University Women (Minneapolis Branch).

**Institute of Child Welfare**—John E. Anderson served as member, Governor's Advisory Commission on Aging, 1953-54; vice-chairman, U. S. National Committee for Childhood Education, 1952-54; member, Committee on Scientific and Professional Ethics and as member, Committee on Retired Psychologists, American Psychological Association, 1953-54; member, Editorial Committee, *Annual Review of Psychology*, 1952-54. He was a delegate to the Fourth National Conference of the United States National Commission for UNESCO, Minneapolis, 1953; gave Ichabod Spencer Lecture at Union College,

Schenectady, New York, March 17, 1953; and was awarded a research grant for five-year period (with Dale B. Harris) by National Institutes of Health, U. S. Public Health Service, 1953.

Evelyn D. Deno served as secretary, Minnesota Council on Family Life, 1952-54; and member, Board of Directors, Elliot Park Nursery School, Minneapolis, 1952-54.

Elizabeth M. Fuller served on Executive Committee, Department of Kindergarten-Primary Education, National Education Association, 1953-54; general chairman, Biennial Conference, National Association for Nursery Education, October, 1953; and as Minnesota editor, National Association for Nursery Education *Bulletin*, 1953-54.

Dale B. Harris served as member, Governor's Advisory Committee on Children and Youth, State of Minnesota, 1952-54; member, Technical Committee on Supervision of Young Workers, Bureau of Labor Standards, U. S. Department of Labor, 1952-54; consultant, Conference on Juvenile Delinquency called by Secretary of the Department of Health, Education, and Welfare, Washington, D.C., June 28-30, 1954; member-at-large, Executive Committee, 1953-54, member and secretary pro-tem, Policy and Planning Committee, 1952-53, Division on Childhood and Adolescence; member, Steering Committee, Work Conference on the Qualifications and Training of School Psychologists, Education and Training Board, 1953-54, American Psychological Association; consultant on Parent Education, Kansas City, Missouri, Public Schools, March 22-23, 1954; consultant on Parent-Teacher Relations, St. Paul Public Schools, April-May, 1954; awarded research grant for five-year period (with John E. Anderson) by National Institutes of Health, U. S. Public Health Service, 1953.

Neith E. Headley was elected to Pi Lambda Theta (honorary education society), 1954.

Merrill F. Roff served as member, National Council, American Association for the Advancement of Science (as representative of Psychometric Society), 1952-54; member, Election Committee, Division of Evaluation and Measurement, American Psychological Association, 1953-54. He conducted contract research projects for the USAF School of Aviation Medicine, 1952-54.

Mildred C. Templin served as member and chairman, Advisory Board, University YWCA.

**School of Dentistry**—Lyle A. Brecht was member, Executive Council and Board of Ethics, Minneapolis District Dental Society, 1954.

William H. Crawford served as member, Executive Committee, American Association of Dental Schools, 1953-54; member, University Relations Committee, Minnesota State Dental Association, 1953-54; associate editor, 1952-53, and editor-in-chief, 1953, *Digest of Dental Science*.

Kenneth C. Erickson was elected secretary, American Society of Dentistry for Children, 1953-54.

Norman O. Holte was named secretary, Minneapolis District Dental Society, 1953-54.

Ione M. Jackson served as member, Subcommittee on Public Health, 1953, and member, 1953, Committee on Education and Licensure, American Dental Hygienist Association.

Elwin E. Luhring was member, Minnesota Dental Health Education Committee, 1952; member, Minnesota State Dental Advisory Committee to Department of Health, 1952; and vice-president, St. Paul District Dental Society, 1952-53.

David F. Mitchell served as member, Research Committee, Minnesota Section, 1953, and member, Board of Directors, Minnesota Section, 1952, American Cancer Society.

Sherwood R. Steadman was elected president, St. Paul District Dental Society, 1954. He served as member, University Relations Committee, Minnesota State Dental Association, 1954; and treasurer, Minnesota Dental Foundation, 1954.

Harold C. Wittich was recipient of a Hamline University Centennial citation for church and civic leadership, 1954.

Helmut A. Zander was elected president, Minnesota Section, International Association of Dental Research, 1954.

**Law School**—Kenneth M. Anderson was named chairman, Governor's Special Advisory Council on Sickness and Disability Insurance, 1952-54.

Edward S. Bade served as member, Committee to Revise the Trust Laws for Minnesota, State Bar Association, 1952-54.

Leon M. Liddell was member, Special Committee on Revision of Library Standards, Association of American Law Schools, 1952; member, Joint Committee on Cooperation Between the American Association of Law Libraries and the American Association of Law Schools, 1953.

Robert C. McClure served as member, Committee to Revise the Trust Laws for Minnesota, State Bar Association, 1952-54.

Monrad G. Paulsen served as member, Advisory Committee, Journal of Legal Education, 1952-54; and public member, Regional Wage Stabilization Board, Region VIII, 1952-54.

Charles Alan Wright was assistant to the reporter, Advisory Committee on Rules of Civil Procedure, U. S. Supreme Court, 1952-54; and secretary, Court Rules Committee, Minnesota State Bar Association, 1952-54.

**College of Pharmacy**—Frank E. DiGangi was named secretary-elect, 1953-54, and secretary, 1954, Minnesota Chapter, Sigma Xi; chairman, Committee on Research, Minnesota State Pharmaceutical Association, 1952-53; chairman, Committee on United States Pharmacopoeia and National Formulary Revision, Minnesota State Pharmaceutical Association, 1953-54.

Earl B. Fischer served as member, Committee on United States Pharmacopoeia and National Formulary Revision, United States Pharmacopoeial Convention.

Ole Gisvold was recipient of the Ebert Prize Medal (high research award), American Pharmaceutical Association, 1953; was chairman, Scientific Section, 1953, and chairman, Committee on Pharmaceutical Research, 1953, American Pharmaceutical Association.

Willard J. Hadley was re-elected secretary, Minnesota State Pharmaceutical Association, 1952-54; chairman, College Section, District V, Colleges and Boards, American Association of Colleges of Pharmacy and National Association of Boards of Pharmacy, 1954; and was elected a fellow, American Association for the Advancement of Science, 1953.

Robert H. Miller was member, Committee on Pharmaceutical Practice, Minnesota State Pharmaceutical Association, 1952-54.

Charles V. Netz served as member, Minnesota State Board of Health and Vital Statistics, 1952-54; member, 1952-53, and chairman, 1953-54, Executive Committee, Minnesota State Pharmaceutical Association.

Charles H. Rogers served as chairman, Committee on Status of Pharmacists in Government Service, American Association of Colleges of Pharmacy; chairman, Resolutions Committee, 5th District, American Association of Colleges of Pharmacy and Boards of Pharmacy.

Wallace F. White was elected to membership in the Society of the Sigma Xi, 1953, and received Honorable Mention in the Ebert Prize Award in Pharmacy, American Pharmaceutical Association, 1953.

**The Graduate School**—Theodore C. Blegen served as vice-chairman, American Council of Learned Societies; vice-chairman, Advisory Board on National Parks; member, Committee for Minneapolis' Future; member, Advisory Committee on the Harry S. Truman Library, Inc.; member, National Committee on the Museum of American Immigration; and adviser, Louis W. and Maud Hill Family Foundation on the James J. Hill papers.

**Mayo Foundation for Medical Education and Research**—Richard C. Adams was examiner, American Board of Anesthesiology, 1952-54; secretary, Academy of Anesthesiology, 1952-54; member, Executive Committee on Public Health Education, 1952-53, chairman, Committee on Anesthesiology, 1952-54, Minnesota State Medical Association; delegate of the Minnesota Society of Anesthesiologists to the House of Delegates, American Society of Anesthesiologists, 1952-53; and member, Committee on Constitution and By-Laws, Minnesota Society of Anesthesiologists, 1952-54.

Alexander Albert was member, Editorial Board, *Endocrinology*, 1952-54; and Sigma Xi Lecturer at Purdue University, February 26, 1953.

Edgar V. Allen served as chairman, Committee on Distinguished Service Award, 1952-53, and member, House of Delegates, representing Section on Experimental Medicine and Therapeutics, 1952-54, American Medical Association; member, American Board of Internal Medicine; member, Board of Directors and Executive Committee, and vice president, American Heart Association, 1952-54; member, Society of Medical Consultants of World War II, 1953-54; editor, *Clinical Conferences*, 1952-54; associate editor, *Circulation*, 1952-54; and member, Board of Directors, Minnesota Heart Association, 1952-53. He was the C.W.M. Poynter Lecturer, University of Nebraska, 1952-53; and received the honorary doctor of science degree from the University of Nebraska, 1953.

H. A. Anderson was member, American Board of Internal Medicine, 1952-54.

Mark J. Anderson was member, Interprofessional Relations Committee, and member, Community Research Council Committee, 1952-54, Minnesota State Medical Association.

Milton W. Anderson was member, Editorial Board, *Diseases of the Chest*, 1952-53.

Louie T. Austin served as censor, 1952-54, and member, Nomenclature Committee, 1953-54, American College of Dentists.

Archie H. Baggenstoss was member, American Board of Pathology, 1952-54; contributing editor, *American Journal of Clinical Pathology*, 1952-54; and member, Board of Censors, American Society of Clinical Pathologists, 1952-54.

Allan A. Bailey was member, Council, Canadian Neurological Association, 1952-54.

Hugo L. Bair was member, American Board of Ophthalmology, 1952-53.

George S. Baker was member, American Board of Neurosurgery, 1952-54; and was recipient of Citation from Western Maryland College as an outstanding graduate in medicine, 1952.

Edward J. Baldes was member, Advisory Committee on Electroencephalography, Council on Physical Medicine and Rehabilitation, 1952-54; member, Editorial Board, *Review of Scientific Instruments*, 1952-54; member, Editorial Board, *International Journal of Electroencephalography and Clinical Neurophysiology*, 1952-54; member, Executive Council, Aero Medical Association, 1952-54; councilor, Minnesota Academy of Science, 1952-54; and secretary-treasurer, Sigma Xi, 1952-53.

William M. Balfour served as president, Rochester, Minnesota Community Concerts, Inc., 1952-54; member, Board of Trustees, Universalist Church, Rochester, 1952-54; member, Board, Symphony at Rochester, Inc., 1952-54.

Edward A. Banner continued as chairman, Committee on Rotary Foundation Scholarship (Minnesota), 1952-54; and president, Rochester, Minnesota Rotary Club.

Jacob A. Barga was delegate to American Medical Association from Minnesota, 1952-54; member, American Board of Internal Medicine; delegate and member, State Board of Medical Examiners; chairman, Council on Medical Service, member, Committee on Public Policy, and chairman, Committee on Medical Service, Minnesota State Medical Association, 1952-54; member, Editorial Board, 1952-53, and associate editor, 1952-54, *Gastroenterology*; and first Beaumont Lecturer, Michigan State Medical Society, 1953.

Nelson W. Barker was member, American Board of Medicine, 1952-54; member, Board of Directors, American Society for the Study of Arteriosclerosis, 1952-54; member, Board of Directors and Executive Committee, American Heart Association, 1952-54; and delegate to the Minnesota State Medical Association, 1952-54.

Archie R. Barnes was member, Hospital Committee, and member, Heart Committee, 1952-54, Minnesota State Medical Association.

Warren A. Bennett served as member, Committee on Registration for the Second International Congress of Clinical Pathology, 1952-53; and councilor, Minnesota Society of Clinical Pathologists, 1953-54. He was recipient of an award for the exhibit at the meeting of the American Urological Association, St. Louis, Missouri, May 1953.

Joseph R. Berkson was member, Committee on Statistical Research, American Cancer Society, 1952-54; member, Council, International Biometrics Society, 1952-53; member, Board of Directors, American Statistical Association, 1952-53; member, Council, Institute of Mathematical Statistics, 1953-54; member, Subcommittee on Medicine, Committee on Applied Mathematical Statistics, 1952-54; and member, U. S. Subcommittee on Hospital Statistics, World Health Organization.

William H. Bickel was examiner, American Board of Orthopedic Surgery, 1952-54; member, North Central States Regional Committee, American Academy of Orthopedic Surgeons, 1952-54; and regional chairman, Committee on Trauma, American College of Surgeons, 1952-54.

Reginald G. Bickford was member, Certification Board, American Board of Electroencephalography, 1952-54; member, Nomination Committee, 1952-53, member, Council, 1952-54, and chairman, Program Committee, 1953-54, American Electroencephalography Society; and member, Council, Central Association of Electroencephalographers, 1952-54.

B. Marden Black served as member, Program Committee, 1952-54, chairman, Long and Meritorious Award Committee, member, Goiter Prevention Committee, 1953-54, American Goiter Association; and was participant in Motion Picture Symposium, American College of Surgeons, 1953-54. His exhibit on Hyperparathyroidism was awarded honorable mention by the American Medical Association, 1952-53.

Jesse L. Bollman served as president, Association for Study of Liver Disease, 1952-53; member, Josiah Macy Jr. Foundation Conference on Liver Injury, 1952-53; member, Committee on Fellowship Awards, American Gastroenterologic Association, 1952-54; and member, Editorial Board, *Gastroenterology*, 1952-54.

David A. Boyd, Jr. was secretary-treasurer, American Board of Psychiatry and Neurology, 1952-53; delegate for American Board of Psychiatry and Neurology, Incorporated, 1952-53; member, Committee on Hospital Policies and Standards, American Psychiatric Association, 1952-53; and member, Special Medical Advisory Group, Veterans Administration, 1952-53.

Ezra V. Bridge served as member, Board of Directors, Minnesota Tuberculosis and Health Association, 1952-54; vice president, 1953, president, 1954, Goodhue County Medical Society; member, Tuberculosis Facilities Commission, appointed by the Governor of Minnesota, and chairman of the Commission's Committee on Care and Treatment.

Alex E. Brown was associate editor, *Minnesota Medicine*, 1952-54.

Joe R. Brown was treasurer and member, Committee on Special Study Courses, American Academy of Neurology, 1952-54; member, Committee on Public Relations, American Neurological Association, 1952-54; and member, Committee on Nervous and Mental Disease, Minnesota State Medical Association, 1952-54.

Louis A. Brunsting served as secretary, 1952-53 and president, 1953-54, American Dermatological Association; member, Committee on Education, American Academy of Dermatology and Syphilology, 1952-54; and member, Executive Committee, International Congress of Dermatology, 1953-54.

Andre Bruwer received the Bronze Medal (with others) for an exhibit at the annual meeting of the American Roentgen Ray Society, October 1953.

Louis A. Buie was member, Judicial Council, chairman, Council on Constitution and By-Laws, member, House of Delegates, member, Committee on Relationship Between the Medical Profession and Allied Health Agencies, American Medical Association, 1952-54; secretary, American Board of Proctology, 1952-54; vice chairman, General Advisory Committee, National Foundation for Infantile Paralysis, Inc., 1952-54; and member, Admission Committee, University of Maryland, 1952-54. He was recipient of the Alumni Honor Award Medical Alumni Association, University of Maryland.

Howard B. Burchell served as member, Consultants on Electrocardiographs, Council on Physical Medicine, American Medical Association, 1952-53; chairman, Committee on Allocation of Research Funds, American Heart Association; and president, Minnesota Society for Experimental Biology and Medicine, 1952-53. He was awarded a Certificate of Merit for the exhibit at the annual meeting of the American Medical Association, New York, June 1953.

Hugh R. Butt served as secretary, 1952-53, and vice chairman, 1953-54, Section on Experimental Medicine and Therapeutics, and member, Council on Medical Education and Hospitals, 1953-54, American Medical Association; member, Admissions Committee, American Gastroenterology Association, 1952-54; member, Committee on Medical Education and Hospitals, Minnesota State Medical Association, 1952-54; and member, Editorial Board, *Archives of Internal Medicine*, 1952-54.

David T. Carr was member, Committee on Therapy, American Trudeau Society, 1952-53; member, Medical Sessions Subcommittee, Annual Program Committee, National Tuberculosis Association, 1954.

Hadden M. Carryer was chairman for Minnesota, National Convention of County Medical Society Officers, 1952-54; diplomate, American Board of Internal Medicine, 1952-54; member, Executive Committee on Public Health Education, member, Speakers' Bureau, chairman, vice-speaker, House of Delegates, member, Membership Committee, 1952-54, and of state-wide Congressional Committee, 1953-54, Minnesota State Medical Association; president, Olmsted-Houston-Dodge-Fillmore County Medical Society, 1953-54; and member, Medical Advisory Board, Department of Public Welfare, State of Minnesota, 1952-54.

Donald S. Childs, Jr., was member, Committee on Scientific Exhibits, 1953-54, member, Commission on Education, 1954, and member, Commission on Radiologic Units and Protection, 1953, American College of Radiology.

O. Theron Claggett served as member, Membership Committee, American Association for Thoracic Surgery, 1952-54; member, Cancer Committee, American College of Surgeons, 1952-54; member, Judiciary Committee for the State of Minnesota, 1952-54. He was recipient of a fellowship, Royal Australasian College of Surgeons, of a Certificate of Merit for the exhibit at the annual meeting of the American Medical Association, New York, June 1953, and was named honorary member, Mexican National Academy of Surgery.

Edward C. Clark was assistant examiner, American Board of Psychiatry and Neurology.

Charles F. Code was member, Board of Trustees, Minnesota Medical Foundation, Minneapolis, 1952-53; and chairman, Board of Symphony at Rochester, Inc., 1953-54.

Mandred W. Comfort was member, Committee on Standardization of Laboratory Procedures, 1952-54, member, National Committee for the Study of Peptic Ulcer, and member, Subcommittee on Hormones, 1952-54, American Gastroenterological Association.

Edward N. Cook was member, Committee to Judge Scientific Exhibits, American Urological Association, 1952-53.

Kendall B. Corbin served as assistant examiner, American Board of Psychiatry and Neurology, 1953-54; and chairman, Committee on Graduate Medical Education, Association of American Medical Colleges.

Mark B. Coventry was member, Committee on Medical Abstracts, 1952-53; regional associate editor, 1953-54, and associate editor, 1953-54, *Journal of Bone and Joint Surgery*, American Academy of Orthopedic Surgeons; member, Program Committee, American Academy of Orthopedic Surgeons, 1953-54; and member, Medical Testimony Committee, Minnesota State Medical Association, 1952-54. He received a Certificate of Merit for an exhibit at the Annual Meeting of the American Medical Association, New York, June 1953.

Winchell M. Craig was member, Committee on Medical Motion Pictures, American College of Surgeons, 1952-54; member, Executive Committee, Harvey Cushing Society, 1952-54; member, Committee on Legislation, American Academy of Neurology, 1952-54; member, Editorial Board, *Journal of Neurosurgery*, 1952-53; member, Specialty Advisory Board, *Postgraduate Medicine*, 1952-54; member, Executive Committee, Society of Neurological Surgeons, 1953-54; member, Committee on Naval Medical Research, 1952-54, and chairman, Reserve Consultants Board, Bureau of Medicine and Surgery, Department of the Navy, 1952-54; and was a member, Board of Trustees, Ohio Wesleyan University. He was awarded Life Membership and Medal, as retiring president, Association of Military Surgeons.

Ormand S. Culp was a member, Public Relations Committee, American Urological Association, 1952-53. He was recipient of an Award (first place)

for the exhibit on A Pelvic Flap Operation at the meeting of the American Urological Association, St. Louis, Missouri, May 1953.

David C. Dahlin was awarded a Certificate of Merit for an exhibit at the annual meeting of the American Medical Association, New York, June 1953.

Guy W. Daugherty received the Bronze Medal (with others) for an exhibit at the annual meeting of the American Roentgen Ray Society, October 1953.

James H. DeWeerd received the J. William White Award for foreign travel, 1952; and the Award for an exhibit at the meeting of the American Urological Association, St. Louis, Missouri, May 1953.

Malcolm B. Dockerty was named civilian consultant to Armed Forces Institute of Pathology; honorary life member, Nova Scotia Medical Society; and received the Billings Gold Medal Award for exhibit at meeting of American Medical Association, 1953.

Bruce E. Douglass was member, Membership Committee, Minnesota Trudeau Society, 1953-54.

Thomas J. Dry served as member, Education Committee, 1952-53, and member, Program Committee, Scientific Section, 1953-54, American Heart Association; and member, Board of Directors, Minnesota Heart Association, 1952-54. He was recipient of the Silver Medal for exhibit at the meeting of the American Medical Association, New York, June 1953; and the Bronze Medal (with others) for exhibit at the annual meeting of the American Roentgen Ray Society, October 1953.

James W. DuShane was member, Committee on Rheumatic Fever and Cardiac Disease, American Academy of Pediatrics, 1953-54.

L. McKendree Eaton served as president, Central Neuropsychiatric Association, 1952-53; member, Editorial Committee, Minnesota State Medical Association, 1953-54; and president, Minnesota Society of Neurology and Psychiatry, 1952-53.

Jesse E. Edwards served as member, Councilors, International Association of Medical Museums, 1952-53; member, Committee on Registry of Cardiovascular Pathology, American Heart Association, 1952-54; member, Editorial Board, *Laboratory Investigation*, 1952-54, vice president, 1953-54, International Association of Medical Museums; and contributing editor, *American Journal of Clinical Pathology*, 1952-54. He received the Silver Medal for an exhibit at the annual meeting of the American Medical Association in New York, June 1953; and the Bronze Medal (with others) for exhibit at the annual meeting, American Roentgen Ray Society, October 1953.

Earl C. Elkins served as chairman, Advisory Committee on Education, Council on Physical Medicine and Rehabilitation, 1952-54; member, Examining Board, 1952-54, secretary-treasurer, 1953-54, and chairman, Committee on Advances of Education, American Congress of Physical Medicine and Rehabilitation; member, Board, 1952-53, and chairman, 1953-54, American Registry of Physical Therapists; member, Board of Editors, *Archives of Physical Medicine and Rehabilitation*, 1952-54.

John L. Emmett was secretary-treasurer, North Central Section, American Urological Association.

Donald J. Erickson was chairman, Midwestern Section, 1952-54, and member, Committee to Foster, Encourage, and Coordinate Research, American Congress of Physical Medicine and Rehabilitation, 1953.

Hiram E. Essex served as member, Council, 1952-54, member, Editorial Board, 1952, and president, 1954, American Physiological Society; member, Cardiovascular Study Section, National Institutes of Health; and member, Hormel Institute Board. He delivered the Joseph Graham Mayl lecture, State University of Iowa, May 10, 1954.

John E. Estes was associate editor of the medical journal, *Circulation*, 1952-53.

John E. Faber was member, Committee on Maternal Welfare, Minnesota State Medical Association, 1952-54; and member, Board of Governors, Minnesota Obstetrics and Gynecology Society, 1952-54.

Albert Faulconer, Jr., was associate examiner, April 1953, American Board of Anesthesiology; vice chairman, Board of Governors, American College of Anesthesiologists, 1952-54; president-elect, Association of University

Anesthetists, 1954; member, Board of Contributing Editors, *Minerva Anesthesiologica*, Journal of the Italian Society of Anesthesiologists, 1953-54; and member, Subcommittee, Anesthesia, National Research Council, 1952-54.

William H. Feldman continued to serve as member, Medical Advisory Board, Leonard Wood Memorial, 1952-54; member, Medical Advisory Board, Colorado Tuberculosis Foundation, 1952-54; member, Editorial Board, *American Review of Tuberculosis*, 1952-54; member, Committee on Animal Health, Agricultural Board, National Research Council, 1952-54; member, Scientific Advisory Board, Armed Forces Institute of Pathology, 1952-54; and ex-officio member, Committee on Tuberculosis, Minnesota State Medical Association, 1952-54. He served as official representative of the American Veterinary Medicine Association to the American Association for the Advancement of Science, 1952-54; president and member of Council, American Association of Pathologists and Bacteriologists, 1952-53; president, Conference of Research Workers in Animal Diseases in North America, 1952; consultant in Tuberculosis, Department of Medicine and Surgery, Veterans Administration, 1953-54; and member, Tuberculosis Facilities Study Commission, 1952-54. He was awarded the Dearholt Medal for 1953, Mississippi Valley Tuberculosis Conference and its medical section, the Mississippi Valley Trudeau Society, 1953-54; was Dearholt Days speaker, Marquette University and University of Wisconsin, 1953; and was named honorary member, Societa Italiana Delle Scienze Veterinarie, 1953-54.

Deward O. Ferris was member, Committee on Applicants for District No. 2 of Minnesota, American College of Surgeons; and director, Minnesota Surgical Society, 1953-54.

Frederick A. Figl was member, Founders Group, 1952-54, chairman, Committee on Training Facilities and Postgraduate Education, 1952-54, and chairman, Residency Review Committee, 1953-54, American Board of Plastic Surgery; member, Advisory Board, 1952-54, member, Executive Committee, 1952-53, and member, Publications Committee, 1953-54, American Society of Plastic and Reconstructive Surgery; and member, Board of Reviewers, International Abstracts, *Journal of Plastic and Reconstructive Surgery*, 1953-54.

Eunice V. Flock continued to serve as member, Women's Service Committee, American Chemical Society, 1952-54.

Ward S. Fowler served as member, Editorial Committee, American Society for Clinical Investigation, 1953-54; and member, Program Advisory Committee, American Physiological Society, 1953-54.

Robert E. Fricke was elected secretary, American Radium Society, 1953-54.

Robert P. Gage served as member, Section Committee on Biometrics, American Statistical Association, 1952-54; member, Regional Advisory Board, Eastern North American Region, Biometric Society, 1952-54; and member, Committee on Non-Academic Institutional Memberships, Institute of Mathematical Statistics, 1953-54.

Ralph K. Ghormley was member, Advisory Committee, American Board of Orthopedic Surgery, 1952-54; member, Committee for Advancement of Orthopedic Surgery, American Academy of Orthopedic Surgeons, 1952-54; and member, Fracture Committee, Minnesota State Medical Society, 1952-53.

R. Wallace Gifford, Jr., was named chairman, Necrology Committee, Minnesota State Medical Association.

Clarence A. Good served as member, Committee on Scientific Exhibits, American Roentgen Ray Society, 1952-54; member, Committee on Hospitals and Professional Relations, Committee on Scientific Assembly, 1952-54, and secretary, 1952, and chairman, 1953-54, Section on Specialties, Minnesota State Medical Association; and vice president, and president, Minnesota Radiological Society. He delivered the Carman Lecture, St. Louis Medical Society, October 20, 1953.

Howard K. Gray continued to serve as member, Commission for the Improvement of the Care of the Patient, American Medical Association, 1952-53; and as member, Board of Consultants to Surgeon General, 1952-53. He served also as member, Board of Governors, American College of Surgeons, 1952-53; member, Board of Consultants, U. S. Navy, 1952-53; and member, Society of U. S. Medical Consultants of World War II, 1952-53.

Samuel F. Haines was member, Editorial Board, *Journal of Clinical Endocrinology and Metabolism*, 1952-54; and member, Resolutions Committee, American Goiter Association, 1953-54.

Malcolm M. Hargraves was member-at-large, Minnesota State Water Pollution Control Commission, 1952-54.

Stuart W. Harrington continued to serve as member, Advisory Editorial Board, *Journal of Thoracic Surgery*, 1952-53.

Lloyd E. Harris continued to serve as alternate member, National Advisory Council, Mooseheart Laboratory for Child Research, 1952-54.

Frank J. Heck continued to serve as special examiner, American Board of Internal Medicine, 1952-53; and member, Committee for Revision of Nomenclature in Hematology, 1952-53.

Gustav A. Hedberg was president, Mississippi Valley Trudeau Society, 1952-53. He continued as member, Executive Committee, American Trudeau Society, 1952-53; area consultant in tuberculosis, Veterans Administration, 1952-54; member, Committee on Tuberculosis, Minnesota State Medical Association, 1952-54; president, Minnesota Chapter, American College of Chest Physicians, 1952-53; vice president, St. Louis County Medical Society, 1952-53; and member, Governor's Commission for the Study of Tuberculosis Facilities in Minnesota, 1952-53.

LeRoy D. Hedgecock was consultant to Committee on Conservation of Hearing, Minnesota State Medical Association, 1952-54.

Fordyce R. Heilman was member, Editorial Board, *Journal of Antibiotics and Chemotherapy*, 1952-54.

Philip S. Hench continued to serve as chairman, American Committee, International League Against Rheumatism, 1952-54; and member, Executive Committee, American Rheumatism Association, 1952-54. He was member, Advisory Committee, National Research Council, 1952-54; and the recipient of the following awards; Heberden Medal; Laskar Award, Page 1 Award, Newspaper Guild, New York; Scientific Award, American Pharmaceutical Manufacturers Association; Special Citation of the American Rheumatism Association; Pennsylvania Ambassador Award; Special Citation from Regents of the University of Minnesota; and Decoration of the Order of Carlos Finlay of the Cuban Government.

Edward D. Henderson was named diplomate, American Board of Orthopedic Surgery, 1952-53.

John W. Henderson was elected president, Rochester Golf and Country Club, 1952-53.

Wallace E. Herrell continued to serve as member, Editorial Board, *Antibiotics and Chemotherapy*, 1952-53; member, Subpanel on Revision, *United States Pharmacopoeia*, 1952-53; and chairman, Medical Section, Committee on Scientific Assembly, Minnesota State Medical Association, 1952-53.

Julia F. Herrick continued to serve as member, Administrative Committee, 1952-53, and secretary-treasurer, 1952-53, Medical Electronics Group, Institute of Radio Engineers. She was group representative on the Technical Program Committee for the 1953 National Institute of Radio Engineers Convention, 1952-53; and chairman, Physical Science Section, Minnesota Academy of Science, 1952-53.

Richard M. Hewitt continued to serve as chairman, Educational Committee, American Medical Writers' Association, 1952-54; member, Editorial Board, American Illustrated Medical Dictionary (Dorland) 22nd edition, 1952-54; and chairman, Publicity Committee, Olmsted-Houston-Fillmore-Dodge County Medical Society, 1952-54. He served as member, Steering Committee, Third Conference on Scientific Editorial Problems meeting with American Association for the Advancement of Science, 1953-54.

Edgar A. Hines was member, Board of Directors, Minnesota Heart Association, 1952-53; and was awarded a Certificate of Merit for an exhibit at the annual meeting of the American Medical Association, New York, June 1953.

Corrin H. Hodgson continued to serve as member, Committee on Tuberculosis, 1952-54, and chairman, Subcommittee on Tuberculosis Among Displaced Persons, 1952-54, Minnesota State Medical Association; and was member, Insurance Liaison Committee, 1952-54.

John R. Hodgson was elected secretary-treasurer, Minnesota Radiological Society, 1952-54.

Robert W. Hollenhorst was named chairman, Council for 1952-53, Minnesota Academy of Ophthalmology and Otolaryngology.

C. B. Holman was member, Refresher Course Committee, Radiological Society of North America, 1953-54.

Arthur B. Hunt continued as member, Executive Committee, Section on Obstetrics and Gynecology, 1952-53, and delegate and member, Committee on Maternal Health, Minnesota State Medical Association, 1952-54. He was elected president, Minnesota Obstetrical and Gynecological Society, 1952-54.

John C. Ivins served as member, Committee on Trauma, American College of Surgeons, 1952-54; and secretary, Minnesota-Dakota-Manitoba Orthopedic Society, 1952-54.

Raymond J. Jackman was alternate delegate from Section on Gastroenterology and Proctology, to the House of Delegates, American Medical Association, 1952-54; associate member, Examining Board, American Board of Surgery, 1952-54; and member, Editorial Committee, American Proctologic Society, 1952-54. He continued as member, House of Delegates, and member, State Health Relations Committee, Committee on Medical Economics, Minnesota State Medical Association, 1952-54.

Victor Johnson continued to serve as member, Council on Medical Education and Hospitals, American Medical Association, 1952-54; member, Board of Directors, American Medical Education Foundation, 1952-54; member, Board of Directors, National Society for Medical Research, 1952-53; chairman, Committee on Extension and Policy, Alpha Omega Alpha, 1952-54; member, Advisory Council, National Fund for Medical Education, 1952-54; and member, Board of Honorary Civilian Consultants to the Surgeon General of the Navy, 1952-54. He was appointed member, Board of Directors, United States Committee of World Medical Association, 1952-54. In 1953-54 he was awarded the honorary degree, doctor of science, by Rockford College, Rockford, Illinois.

Edward S. Judd, Jr., served as member, Applicant Reviewing Committee, American College of Surgeons, 1952-54; and was elected president, Minnesota Surgical Society, 1952-53.

Alfred G. Karlson served as secretary-treasurer, Conference of Research Workers in Animal Diseases, 1952-54; member, National Board of Veterinary Examiners, 1952-54; editor, Section on Veterinary Science, *Biological Abstracts*, 1952-54; advisory editor, *Journal of Bacteriology*, 1952-54; member, U. S. Committee for the Fifteenth International Veterinary Congress, 1952-54; member, Research Council, American Veterinary Medical Association, 1952-54; member, Advisory Committee, Louis W. and Maud Hill Family Foundation project for the study of reproduction in dairy cattle, 1952-54; and member, Program Committee, 1955 Annual Meeting, National Tuberculosis Association.

F. Raymond Keating continued to serve as member, Editorial Board, *Journal of Clinical Investigation* (committee of the American Society for Investigation), 1952-54.

Haddow M. Keith was examiner, American Board of Pediatrics, 1952-54; and member, Medical Advisory Board, National Epilepsy League, Inc., 1953-54.

Roger L. J. Kennedy served as vice president and president, American Academy of Pediatrics, 1952-54; and continued as member, Committee on Child Health, Minnesota State Medical Association, 1952-53.

James W. Kernohan served as member, Board of Governors, College of American Pathologists, 1953-54; member, Scientific Advisory Board, 1952-54, and civilian consultant, 1953-54, Armed Forces Institute of Pathology.

Robert R. Kierland served as delegate, Section of Dermatology and Syphilology, 1952-54, secretary-treasurer, Section and Service Delegates, 1953-54, guest consultant to Advisory Committee on Education, Council of Physical Medicine and Rehabilitation, 1952-54, and member, Advisory Committee on Dermatologic Vehicles from the Academy to the Council on Pharmacy and Chemistry, 1952-54, American Medical Association; member,

Nominating Committee, American Academy of Dermatology and Syphilology, 1952-53; dermatologic editor, *Quarterly Review of Internal Medicine and Dermatology*, 1952-53; and special consultant (syphilis), United States Public Health Service, 1952-54. He continued to serve as member, Executive Committee, United States Figure Skating Association, 1952-53; and member, Board of Directors, Kiwanis Club, Rochester, Minnesota, 1952-53. In February he delivered the Brayton Memorial Lecture, Indianapolis, Indiana.

Byrl R. Kirklin continued to serve as member, House of Delegates, member, Committee on Public Relations, Board of Trustees, American Medical Association, 1952-53; secretary-treasurer, American Board of Radiology, 1952-53; secretary-treasurer, Advisory Board for Medical Specialties, 1952-53; and chairman, Minnesota Advisory Committee to Selective Service, 1952-53. He was senior consultant to the Surgeon General, United States Army, 1952-53; and delivered the Leo Rigler Lecture, University of Minnesota, 1952-53.

Giles A. Koelsche served as chairman, Combined Graduate Instructional Course in Allergy and Ninth Annual Congress, 1953, chairman, Committee on Certification, 1953-54, and member, Board of Regents, 1953-54, American College of Allergists. He was appointed a member, Scientific and Educational Council, American Foundation for Allergic Diseases, 1953-54.

Lawrence C. Kolb continued to serve as member, Committee on Constitution, American Psychiatric Association, 1952-54; member, Committee on Medical Legislation, American Neurologic Association, 1952-54; member, Committee on Public Relations, American Academy of Neurology, 1952-54; member, Committee on Problems of Alcohol, member, Committee on Naval Medical Research, member, Committee on Psychiatry, 1952-54, National Research Council; member, Governor's Advisory Council in Mental Health, 1952-54; and member, Advisory Council to the Public Health Center, 1952-54. He was named chairman, Advisory Board to Counseling Clinic, Public Health Center, 1952-54.

Frank H. Krusen continued to serve as chairman, Council on Physical Medicine and Rehabilitation, member, House of Delegates, and member, Executive Committee, Section on Physical Medicine and Rehabilitation, American Medical Association, 1952-54; treasurer, American Congress of Physical Medicine, 1952-54; counselor, 1952-54, and consultant in Physical Medicine, 1953-54, National Society for Crippled Children and Adults; and consultant on Physical Medicine, Surgeon General, United States Army, 1952-54. He was immediate past-president, International Federation of Physical Medicine, 1952-54; consultant, Minnesota Society for Crippled Children and Adults, 1952-54; consultant, Minnesota Rehabilitation Association, 1953-54; and holder of the Gold Key Award, American Congress of Physical Medicine and Rehabilitation 1952-53. He received the Physician's Award for 1953, conferred and signed by the President of the United States at the fourteenth annual Congress on Industrial Health, Council on Industrial Health, American Medical Association, 1953-54; the Minnesota "Award of Merit," 1953, for services to the handicapped, conferred and signed by the Governor of Minnesota; and the "Citation for Outstanding Service," to the handicapped, 1953, President's Committee on Employment of the Handicapped; and was awarded the John Stanley Coulter Memorial Lectureship, American Congress of Physical Medicine and Rehabilitation, 1952.

Walter F. Kvale was awarded the Gold Medal for an exhibit, American Medical Association, 1952-53.

Clifford F. Lake continued to serve as member, Home Study Course Faculty, American Academy of Ophthalmology and Otolaryngology, 1952-53.

Edward H. Lambert served as chairman, Committee on Instrumentation and Technic, American Association for Electromyography and Electrodiagnosis, 1953-54; member, Working Group on Acceleration, Panel on Aviation Medicine, National Research Council, 1952-53; and was recipient of a personal service contract with the Department of the Navy for consultation in the field of acceleration, 1952-54.

Paul R. Lipscomb continued as member, Scientific Committee, American Academy of Orthopedic Surgeons, 1952-54.

George B. Logan was member, Committee on School Health, American Academy of Pediatrics, 1952-54; chairman, Child Health Committee, 1952-54, and member, Committee on Immunization, 1952-54, Minnesota Medical Association; member, Planning Committee on Health, Third Governor's Conference on Children and Youth, 1952-54; chairman, Committee on Immunization, Minnesota Chapter, American Academy of Pediatrics, 1952-54; and member, Advisory Committee on Summer Round-up, Parent-Teacher Association and Minnesota Tuberculosis and Health Association, 1952-54.

Stanley A. Lovestedt continued to serve as member, State Hospital Dental Service Committee, 1952-53, member, Board of Directors, 1952-53, and chairman, Grants and Aids Committee, 1952-53, Minnesota Dental Foundation; and editor, Minnesota Section, International Association for Dental Research, 1952-53; and was named chairman, Minnesota Section, American College of Dentists, 1952-53.

John S. Lundy served as secretary, Section on Anesthesiology, American Medical Association, 1952-54; member, Board of Directors, American Board of Anesthesiology, 1952-54; adviser in anesthesiology, Shriners Hospitals of North America, 1953; chairman, Committee on Post-Graduate Education, American Society of Anesthesiologists, 1952-54; chairman, Committee on First Aid and Red Cross, and chairman, Committee on Blood and Blood Banks, Minnesota State Medical Association, 1952-54; editor of Section on Pain, *Journal-Lancet*, 1953-54; member, Advisory Committee on County Hospitals to Olmsted County Commissioners, 1952-54; and commissioner, Olmsted County, to Mineral Springs Sanatorium, 1952-54. He was recipient of the Distinguished Service Award of the American Society of Anesthesiologists, and was named Honorary Charter Member of the Michigan Society of Anesthetists.

Colin S. MacCarty was awarded the Certificate of Merit for an exhibit at the annual meeting of the American Medical Association, New York, June 1953.

Thomas B. Magath continued to serve as member, Board of Governors, Liberian Institute of Tropical Medicine, 1952-54; consultant in Tropical Medicine, Veterans Administration, 1952-54; and member, Committee on Cancer, Minnesota State Medical Association, 1952-54. He received the Award of Merit, James Millikin University, Decatur, Illinois, 1952-53.

Frank C. Mann received an Award for an exhibit at the meeting of the American Urological Association, St. Louis, Missouri in May 1953.

Frank D. Mann served as member, Program Committee, American Society of Clinical Pathologists, 1952-54; advisory editor, *American Journal of Clinical Pathology*, 1952-54; chairman, Committee on Standardization of Hepatic Tests, Association for the Study of Liver Diseases, 1952-54; and received the Sheard-Sanford Research Award, 1952, American Society of Clinical Pathologists.

Gordon M. Martin served as vice president, 1952-54, member, Committee on Gold Key Awards, 1952-54, member, Committee on Cooperation with Food and Drug Administration, 1952-53, and member, Committee on Constitution and By-laws, 1952-53, American Congress of Physical Medicine and Rehabilitation. He was chairman, Subcommittee on Physical Medicine and Rehabilitation, Governor's Advisory Council on Mental Health, 1952-54.

Harold L. Mason continued to serve as member, Editorial Board, *Journal of Clinical Endocrinology and Metabolism*, the Endocrine Society, 1952-54; assistant editor, *Chemical Abstracts*, The American Chemical Society, 1952-54; and member, Panel on Hormones, Committee on Growth, National Research Council, 1952-54. He was named to the Board of Directors, Methodist Hospital, 1953-54.

Don R. Mathieson was chairman, Committee on Laboratory Reports, American Society of Chemical Pathologists, 1952-54.

Charles W. Mayo continued to serve as member, Medical Committee, Armed Forces, National Research Council, 1952-53; member, Special Medical Advisory Group, Veterans Administration, 1952-53; member, Medical Advisory Board, The American Legion, 1952-53; member, Board of Directors, Minnesota Public Health Association and Minnesota State Medical Association, 1952-53; member, Board of Regents, University of Minnesota, 1952-54; member, Board of Trustees, Carleton College, 1952-53; editor-in-chief, *Postgraduate Medicine*, 1952-53; and member, Board of Judges, C. C. Criss Award,

1952-53. He served as adviser on aviation medicine, 1953; member, Board of Directors, and member, Committee on Scholarships, Minnesota Chapter, American-Scandinavian Foundation; member, Board of Trustees, Judd-Plummer Memorial Fund, Alumni Association of Mayo Foundation, 1952-53; member, Committee on Publications, *Surgery*, 1952-53; member, Editorial Board, *The Elsevier Press*, 1952-53; and member, Editorial Board, *The American Surgeon*, 1952-53. In the fall of 1953 he was appointed a delegate of the United States to the United Nations.

John R. McDonald continued to serve as consultant in cytology, College of American Pathologists, 1952-54; and as councilor, American Association of Clinical Pathologists, 1952-54. He was named member, Executive Committee, 1952-54, and member, Program Committee for the first annual meetings in Philadelphia, November, 1953, Intersociety Cytology Council; member, Laboratory Committee, National Tuberculosis Society, 1952-54; councilor, Minnesota Society of Clinical Pathologists, 1952-54; and member, Research Committee, Minnesota Division, American Cancer Society, 1952-54.

Wallace A. Merritt was member, Committee on Prevention of Brucellosis, Minnesota State Medical Association, 1952-54; chairman, District Scholarship Committee, Minnesota Alumni Association, 1952-54; and member, Executive Board, Southern Minnesota Medical Association, 1952.

Clark H. Millikan continued as chairman, Membership Committee, American Academy of Neurology, 1952-53; and was awarded the AOA Lectureship, Baylor University, Houston, Texas, 1952.

Frederick P. Moersch served as member, Advisory Committee to the Committee on Scientific Exhibit, American Medical Association, 1952-53; member, Board of Directors, American Board of Psychiatry and Neurology, 1952-54; and delegate, Minnesota State Medical Society, 1952-54.

Herman J. Moersch served as member, Board of Governors, American College of Chest Physicians, 1952-54; president, 1952-53, and member, Council, 1953-54, American Broncho-Esophagological Association; member, Council on Endoscopy, American Gastroenterological Association, 1952-54; member, Council, American Gastroscopic Society, 1952-54; member, Executive Committee, 1952-54, and chairman, Medical Contact Committee, 1952-54, Minnesota Public Health Association; governor, Minnesota Chapter, American College of Chest Physicians, 1952-53; member, Rehabilitation Committee, Minnesota Public Health Association, 1952-53; chairman, Council on Research, American College of Chest Physicians, 1952-54; member, Council, International Broncho-Esophagological Society, 1952-54; associate editor, *Gastroenterology*, 1952-54. He was named honorary member, Argentine Broncho-Esophagological Society, 1952-53, Argentine Medical Society, Chilean Gastro-Enterological Society, and Peruvian Otolaryngological Society, 1952-53.

Hamilton Montgomery continued as chairman, Committee on Pathology, American Academy of Dermatology and Syphilology, 1952-54; and as second vice president, Minnesota State Automobile Association, 1952-54. He was named vice chairman, Section of Dermatology and Syphilology, American Medical Association, 1953-54; and vice chairman, Motor Vehicle Inspection Committee, Minnesota Safety Council, 1952-54.

Kenneth N. Ogle served as chairman, Subcommittee, 1952-54, and member, representing Association for Research in Ophthalmology, 1952-54, American Committee on Optics and Visual Physiology, American Medical Association; member, Advisory Committee on Ophthalmic Devices, Council on Physical Medicine and Rehabilitation, 1953-54; member, Research Executive Council, National Society for Prevention of Blindness, 1952-54; member, United States National Committee, International Committee on Optics, 1953-54; member, Frederic Ives Medal Committee, 1954; member, Executive Council, Armed Forces-National Research Council Vision Committee, 1952-54; consultant, Medical Research Laboratory; associate editor, *Archives of Ophthalmology*, 1952-53; lecturer, 1952-53, and instructor, 1953-54, American Academy of Ophthalmology and Otolaryngology; and associate editor, *Journal of Optical Society of America*, 1953-54.

Paul A. O'Leary served as chief editor, *Archives of Dermatology and Syphilology*, 1952-54; advisory member, American Board of Dermatology and Syphilology, 1952-54; senior member, Board of Directors, American Dermatological Association, 1952-53; special consultant, Division of Venereal Diseases,

Public Health Service, 1952-54; and member, Committee on Diseases of the Skin, Standard Nomenclature, 1952-54. He served as dermatologic editor, *Current Therapy*, W. B. Saunders and Co., 1952-54; and as associate editor of the following: *American Journal of Syphilis*, GP (American Academy of General Practice), *Hautarzt* (Hamburg, Germany), *Excerpta Medica* (Holland), International Congress of the Medical Press, and *Dermatologia*, Italian dermatological journal, 1952-54.

Arthur M. Olsen served for the American College of Chest Physicians as follows: chairman, Committee on Broncho-Esophagology, 1952-54; member, Council on Management and Treatment of Pulmonary Diseases, 1952-53; member, Examining Board, 1952-53; chairman, Scientific Program, 1952-54; and member, Research Council, 1953-54. He was elected president, Minnesota Trudeau Medical Society, 1952-53; and secretary, Minnesota Chapter, American College of Chest Physicians, 1952-54.

Robert L. Parker continued to serve as secretary, Minnesota Society of Internal Medicine, 1952-53; and member, Board of Directors, Minnesota Heart Association, 1952-53. He was awarded the Silver Medal for an exhibit at the annual meeting of the American Medical Association, New York, June 1953; and the Bronze Medal (with others) for exhibit at the annual meeting of the American Roentgen Ray Society, October 1953.

Robert T. Patrick was member, Committee on Programs, Meetings, and Arrangements, Minnesota Society of Anesthesiologists, 1952-54.

John W. Pender served as chairman, Survey Committee for Minnesota, American Board of Anesthesiology, 1952-54; member, Committee on Clinical Records, and member, Committee on Awards and Honors, American Society of Anesthesiologists, 1952-54; member, Executive Committee, Minnesota Society of Anesthesiologists, 1953-54; consultant in Anesthesiology, National Research Council and Veterans Administration, 1952-54; and vice president, Minnesota Society of Anesthesiologists, 1952-53.

Howard F. Polley continued to serve as anonymous consultant on "Queries and Minor Notes," American Medical Association, 1952-54; member, Membership Committee, American Rheumatism Association, 1952-54; and chairman, Olmsted County Medical Advisory Committee, Minnesota State Medical Association, 1952-54.

Marschelle H. Power was member, American Board of Clinical Chemistry, 1953-54; member, Executive Committee, American Association of Clinical Chemists, 1952-54; and member and chairman, Section Meeting, Division of Biological Chemistry, American Chemical Society, 1952-53.

Avery D. Prangen continued to serve as chairman, National Interprofessional Committee on Eye Care, 1952-53; president, American Orthoptic Council, 1952-53; and member, American Committee on Optics and Visual Physiology, 1952-53.

Joseph H. Pratt was member, Committee on Applicants, District #2 of Minnesota, American College of Surgeons, 1952-53.

Louis E. Prickman was member, Executive Committee, Minnesota Society of Internal Medicine, 1952-54.

James T. Priestley served as member, Committee on Graduate Training in Surgery, 1952-54, member, Committee on Examinations, member, Advisory Committee on Nominations, Board of Governors, 1952-53, American College of Surgeons; member, Committee, U. S. International Society of Urology, 1952-53; associate, Editorial Staff, *Surgery, Gynecology and Obstetrics*, 1952-54; member, Advisory Board (editorial), *American Journal of Surgery*, 1952-54; and president, The Central Surgical Association, 1953-54.

Raymond D. Pruitt was member, Committee for Minnesota, Rhodes Scholarships, 1952-54. He was awarded the Silver Medal for an exhibit at the annual meeting of the American Medical Association, New York, June 1953; and received the Bronze Medal (with others) for an exhibit at the annual meeting of the American Roentgen Ray Society, October 1953.

David G. Pugh was associate secretary-treasurer, The Alumni Association, Mayo Foundation, 1952-53; and was awarded the Certificate of Merit for an exhibit at the annual meeting of the American Medical Association, New York, June 1953.

Lawrence M. Randall served as director, 1952-54, and assistant secretary, 1952-54, American Board of Obstetrics and Gynecology; member, Editorial

Board, *American Journal of Obstetrics and Gynecology*, 1952-54; and member, Committee on Maternal Welfare, Minnesota State Medical Association, 1952-54.

Roger W. Ridley was member, Program Committee, 1952, and secretary-treasurer, 1953-54, Minnesota Society of Anesthesiologists.

Grace M. Roth served as secretary, Section on Circulation, American Heart Association, 1952-54; president, 1952-53, and member, Executive Committee, 1953-54, Minnesota Heart Association.

Robert Q. Royer was member, Special Committee on Anesthesia, 1953-54, and member, Public Relations Committee, 1953-54, Minnesota State Dental Association.

C. Wilbur Rucker was associate editor, *Archives of Ophthalmology*, 1952-53; member, Program Committee, Section on Ophthalmology, American Medical Association, 1953-54; and member, Committee on Ophthalmology, Minnesota State Medical Association, 1952-53.

Edward H. Rynearson served as member of Council, The Endocrine Society, 1953-54; and member, Committee on Diabetes, Minnesota State Medical Association, 1952-54.

Charles H. Schiefley continued as member, Executive Committee, Alumni Association, Medical School, University of Minnesota, 1952-53.

Carl F. Schlotthauer served as member, Executive Board, American Veterinary Medical Association, 1952-54; member, Board of Directors, Animal Care Panel, 1952-54; member, Committee to revise the pamphlet, "Care of the Dog Used in Medical Research," Surgery Study Section, National Institutes of Health, 1952-54; and member, Board of Directors, Minnesota Society for Prevention of Cruelty to Animals (Humane Society), 1952-54.

Herbert W. Schmidt was member, Editorial Committee, Committee on Public Health Education, Minnesota State Medical Association, 1952-54.

Thomas H. Seldon was chairman, Editorial Committee, American Association of Blood Banks, 1952-54; member, Board of Trustees, and chairman, Program Committee, International Anesthesia Research Society, 1953-54; member, Committee on Anesthesiology, Minnesota State Medical Association, 1952-54; and member, Judicial Committee, Minnesota Society of Anesthesiologists, 1952-54.

Richard M. Shick was member, Section on Circulation, American Heart Association, 1952-54.

Kinsey M. Simonton was member, Committee on Conservation of Hearing, 1952-54, and chairman, 1953-54, Minnesota State Medical Association. He served as member, Vestry, Calvary Episcopal Church, 1952-53.

Charles H. Slocumb served as past president, 1952-53, member, Executive Committee, member, Program Committee, member, Nominating Committee, and member, Committee to Evaluate Use of Hormones in Rheumatoid Arthritis, 1952-53, American Rheumatism Association; and member, American Committee, International League Against Rheumatism, 1952-53.

Harry L. Smith was chairman, Medical Advisory Committee for Selective Service, Olmsted, Houston, Fillmore, and Dodge counties, 1952-53; member, Heart Committee, and member, House of Delegates, Olmsted-Houston-Fillmore-Dodge County Medical Society, 1952-53.

Newton D. Smith served as president, 1952-53, and member, Council, 1952-54, American Proctological Society.

Randall G. Sprague served as first vice president, 1952-53, president, 1953-54, member, Council, member, Executive Committee, member, Editorial Board, *Diabetes*, and member, Editorial Board, *A.D.A. Forecast*, 1952-54, American Diabetes Association; member, Council, 1952-53, member, Editorial Board, *Journal of Laboratory and Clinical Medicine*, 1952-54, Central Society for Clinical Research; and member, Editorial Board, *Journal of Clinical Endocrinology and Metabolism*, The Endocrine Society, 1953-54. He was presented the first annual J. Howard Reber Memorial Medal by the Philadelphia Metabolic Association, November 16, 1953; and the Banting Medal by the American Diabetes Association, June 19, 1954.

Edward C. Stafne was associate editor, *Oral Surgery, Oral Medicine and Oral Pathology*, 1952-54, American Dental Association; member, Committee on Dental Hospital Service, Minnesota State Dental Association, 1953-54; president-elect, and chairman, Program Committee, American Academy of Oral

Roentgenology, 1953-54; and member, Committee on Education, American Society of Oral Surgeons, 1953-54.

J. Minott Stickney served as chairman, Committee on Hospital and Professional Relations, 1952-54, and counselor, First Medical District, 1953-54, Minnesota State Medical Association. He was chairman, University of Chicago Alumni Foundation's campaign for gifts to the University, 1952-53.

Charles F. Stroebel, Jr., was secretary-treasurer, Southern Minnesota Medical Association, 1952-54.

Hendrik J. Svien was past president and member, Executive Committee, 1953, Congress of Neurological Surgeons.

Luther Thompson was member, Committee on Curricula, Society of American Bacteriologists, 1952-54.

Jan H. Tillisch served as member, Examining Board, American Board of Preventive Medicine, 1953-54; chairman, Resolutions Committee, 1952-53, member, Executive Council, 1952-54; chairman, Committee on Aviation Medical Training and Education, 1953-54; and first vice president, 1953-54, Aero Medical Association; member, Medical Committee, International Air Transport Association, 1952-54; chairman, Committee on Military Affairs, and member, Executive Committee of the Committee on Public Health Education, 1952-54, Minnesota State Medical Association.

Alfred Uihlein was member, Membership Committee, American Academy of Neurological Surgery, 1952-54; and member, Board of Trustees of the Shattuck School, Faribault, Minnesota, 1952-54.

M. Van Herik was member, Publication Committee, American Radium Society, 1953-54.

Khalil G. Wakim continued to serve as member, Editorial Board, *American Journal of Physical Medicine*, 1952-54; and as consultant to the Army Medical Center, Walter Reed Hospital, and to the Office of the Surgeon General, 1952-54.

Waltman Walters was member, Advisory Panel on Medical Sciences, Research and Development, Department of Defense, 1954.

Charles H. Watkins was chairman, Membership Committee, Central Interurban Clinical Club, 1952-54; and member, Medical Advisory Board, National Leukemia Foundation, 1953-54.

John M. Waugh was appointed member, and representative of the Surgical Section, American Medical Association, American Board of Surgery, 1952-54; member, Editorial Board, *Cancer*, 1952-54; member, Editorial Board, *Surgical Abstracts*, 1952-54; member, Nominating Committee, Society of Clinical Surgery, 1952-53; governor, representing American Surgical Association, American College of Surgeons, 1952-54; member, Council, and chairman, Finance Committee, Minnesota State Medical Association, 1952-54. He was awarded the Citation of Merit, Alumni of Tarkio College, Tarkio, Missouri, 1952-53.

Harry M. Weber served as member, Commission on Credentials, American College of Radiology, 1953-54; president, 1953-54, and director, Section on Instruction, American Roentgen Ray Society, 1953-54; and member, House of Delegates, Minnesota State Medical Association, 1953-54.

Lyle A. Weed was counselor, Minnesota Society of Clinical Pathologists to the American Society of Clinical Pathologists, 1952-54; member, Advisory Editorial Board, *American Journal of Clinical Pathology*, 1952-54; member, Professional Education Committee, American Society of Clinical Pathologists, 1952-54; and president, Board of Public Health and Welfare, Rochester, Minnesota, 1952-54. He was awarded the honorary degree, doctor of science, by Simpson College, Indianola, Iowa, 1953.

James F. Weir was secretary, Alumni Association, Mayo Foundation, 1952-54; and was elected to AOA, University of Western Ontario, 1952.

Henry L. Williams served as associate editor, *Transactions of Society*, member, Council, Otosclerosis Study Group, member, Committee on Conservation of Hearing, American Academy of Ophthalmology and Otolaryngology, 1952-53; vice president, Middle Section, and editor-librarian, *Transactions*, American Laryngological, Rhinological and Otological Society, Inc., 1952-53; member, Council, American Otological Society, Inc., 1952-53; and member, Council, Minnesota Academy of Ophthalmology and Otolaryngology, 1952-53

Marvin M. D. Williams served as member, Physics Credentials Committee, 1952-54; member, Examining Board, 1952-54, and chairman, Committee on Requirements for Physicists, 1953-54, American Board of Radiology; member, Subcommittee 6, Handling of Radioactive Isotopes and Fission Products, National Committee on Radiation Protection, 1952-54; member, Committee on Education of Physicists, American College of Radiology, 1953-54; research associate, 1952-54, and member, Council of Representatives, 1952-54, Argonne National Laboratory; and member, Radioisotopes Safety Committee (local), 1952-54.

Viktor O. Wilson served as consultant at the Fourth National Conference on Physicians and Schools, Highland Park, Illinois, 1952-53; member, Committee on Child Health, Minnesota State Medical Association, 1952-54; member, Executive Committee, 1952-53, and chairman, Local Health Services Committee, 1952-54, Minnesota Public Health Conference; member, Governor's Advisory Council on Children and Youth, 1952-54, and Health Committee member, 1952-54; member, Advisory Committee on the Hospital Survey and Construction Program, 1952-54, and member, State Poliomyelitis Planning Committee, 1953-54, Minnesota State Board of Health.

Henry W. Woltman was member, Council, American Neurological Association, 1952-54; member, Ethics Committee, American Academy of Neurology, 1952-54; member, Council on Neurologic Diseases and Blindness, National Institute of Public Health, 1952-54; and area consultant in Neurology, Veterans Administration, 1952-54.

Earl H. Wood was member, Committee on Cardiac Catheterization, American Heart Association, 1952-54; and member, Exhibit Committee, American Society for Clinical Investigation, 1953-54. He was awarded the Certificate of Merit for an exhibit at the annual meeting of the American Medical Association, New York, June 1953.

Henry H. Young was secretary, Committee on Postgraduate Education, American Academy of Orthopedic Surgeons and the American Association of Orthopedic Surgeons, 1952-54; member, Program Committee, American Academy of Orthopedic Surgeons, 1952-54; and member, Membership Committee, American Orthopedic Association, 1953-54.

**School of Business Administration**—Francis M. Boddy served on a special research assignment for the Central Intelligence Agency in Washington, D.C., 1952; and was member, Universities-National Bureau Committee, National Bureau of Economic Research, 1952-54.

John A. Buttrick received a fellowship for 1952-53 from the Fund for Advancement of Education, Ford Foundation. He served as staff member, National Institute for Trade Association and Chamber of Commerce Executives, Evanston, Illinois, 1952.

Ernestine C. Donaldson served as member, National Committee on Qualifications for Certified Professional Secretary, 1954; and was elected to Beta Gamma Sigma, 1954.

George Filipetti was a delegate to the International Conference on Scientific Management in Brussels, Belgium, 1952; was member, Special Conference, National Management Council, to confer with foreign representatives from nine Western European countries and Japan on management problems, 1952.

Richard K. Gaumnitz served as special consultant, Committee for Economic Development, 1952-54, and was chosen as one of "One Hundred Leading Young Men in the City" (Minneapolis), 1953.

Chadwick Haberstroh was awarded a faculty fellowship by the Foundation for Economic Education to study at the Westinghouse Electric Company in Pittsburgh, 1954.

Ernest A. Heilman served as member, Standards Committee, American Accounting Association, 1952-54.

Walter W. Heller served as consultant (fiscal economist), Office of the Secretary of the Treasury, 1952-53; consulting economist, Department of Economic Affairs, United Nations, 1952-54; on continuing roster, 1953-54, of consultants, on matters of tax and fiscal policy in underdeveloped countries; member, Board of Directors, Minnesota Institute of Governmental Research; member, Program Committee, National Tax Association, 1953; member, Com-

mittee on Fiscal Research, National Bureau of Economic Research, 1953-54; co-chairman and participant, Harvard Conference on Agricultural Taxation and Economic Development, 1954; participant, Ford Foundation for Adult Education via Television, 1953; consultant, Committee for Economic Development, on problems of the federal budget, 1954; and was elected to membership in Beta Gamma Sigma, 1954.

Herbert G. Heneman, Jr., was invited to participate in Standard Oil Company of New Jersey summer seminar for educators, 1954; and was elected to Beta Gamma Sigma, 1954.

Robert J. Holloway served as consultant, Minnesota State Department of Business Development, 1952-54; director, Minnesota Chapter, 1952-54, chairman, Program Committee, 1953-54, elected vice president, 1954, American Marketing Association; appointed member, Educational Advisory Committee, Chicago Board of Trade, 1953-54; and served as research editor, *Journal of Marketing*, 1953-54.

Richard L. Kozelka was president, 1952-53, member, Executive Committee, 1953-54, director of pilot study on professional education for business administration, 1952-54, and chairman, Committee on Relations with Accrediting Agencies, 1952-54, American Association of Collegiate Schools of Business; member, Commission on Standards of Education and Experience for CPA's, American Institute of Accountants, 1952-54; member, Board of Directors, National Bureau of Economic Research, 1952-54; member, Board of Directors, Joint Council on Economic Education, 1952-54; consultant, Committee for Economic Development, 1952-54; member, Board of Directors, Minnesota Institute of Governmental Research; member, Board of Directors, Minneapolis Chamber of Commerce, 1952-53; member, Board of Directors, and chairman, Research Advisory Committee, Hennepin County Community Chest and Council, 1952-54; and secretary and member, Executive Committee, Minneapolis YMCA.

Edwin H. Lewis served as editor, Forum Section, *Journal of Marketing*, 1953-54; president, Minnesota Chapter, American Marketing Association, 1952-53; member, National Panel of Marketing Scholars, Central Illinois Chapter, American Marketing Association; and was elected to membership in Beta Gamma Sigma, 1954.

Irma A. Linse was awarded a fellowship for "Economics-in-Action" program, University of Wisconsin, 1954.

Kenneth H. McCartney was awarded a fellowship by the Committee on Research in Economic History, Inc., 1954.

Carl L. Nelson served as chairman, National Income Committee, American Accounting Association, 1953; chairman, Education Committee, Minnesota Society of Certified Public Accountants; member, Committee on Award for best manuscript submitted, National Association of Cost Accountants.

Edmund A. Nightingale served as consultant to director, Military Traffic Service, Office of the Secretary of Defense, 1952-53; consultant to Legislative Interim Committee on Aviation, State of Minnesota, 1952; consultant to Minnesota State Senate Committee on Transit Legislation, 1953; consultant to Minneapolis Mayor's Citizens Advisory Committee on Streetcar and Bus Matters, 1952-53; member, Examination Panel, American Society of Traffic and Transportation; member, Committee on Education and Research, Associated Traffic Clubs of America; member, National Committee on Admissions to Practice, Association of Interstate Commerce Commission Practitioners; member, Educational Relations Committee, General Organizing Committee for the VIII Pan-American Railway Congress, 1953; and member, Legislative Committee, Northwest Shippers' Advisory Board. He was awarded a Diploma of Honor by International Prize Jury in Section E, VIII Pan-American Railway Congress, 1953.

Alden C. Olson was awarded a faculty fellowship, Foundation for Economic Education, studying the organization of the Socony-Vacuum Company, New York City, 1953; and was invited to participate in Seminar sponsored by the New York Stock Exchange and New York stock brokers. He was awarded a fellowship for "Economics-in-Action" program, University of Wisconsin, 1954.

Andreas G. Papandreou was member, Committee on Research in Business Enterprise, Social Science Research Council, 1954.

Naomi M. Peterson served as co-ordinator, Educational Program, Minnesota Chapter, National Secretaries' Association; and as consultant, on educational program for clerical workers, Minnesota State Department of Public Welfare, 1954.

Robert T. Sprouse was awarded a scholarship for seminar sponsored by Joint Committee on Education, American Securities Business, New York City, 1953.

Ben B. Sutton served as member, Investment Advisory Board, Minneapolis Teachers' Retirement Fund Association, 1952-54; and consultant, Committee for Economic Development, Business Executives Research Committee Program, University of Alabama, 1953. He was awarded New York Stock Exchange Fellowship, 1954; elected to Beta Gamma Sigma, 1954; and was honored at Annual All-University Congress Recognition Banquet, University of Minnesota, 1954.

Lloyd Ulman was awarded a three-year faculty fellowship, Social Science Research Council, 1953.

Roland S. Vaile served as member, Judges Award Committee, American Marketing Association, 1953; and was honored by having his name entered in the "Hall of Fame in Distribution" at the Twenty-fifth Annual Boston Conference on Distribution, 1953.

Lillian Werner was awarded a fellowship for Walgreen Seminar in Drug Store Management, 1954.

John T. Wheeler was awarded a fellowship for a symposium conducted by E. I. du Pont De Nemours and Company, 1952.

C. Arthur Williams received a summer faculty fellowship from Foundation for Economic Education, Northwestern National Life Insurance Company, 1953.

Dale Yoder served as member, Governor's Commission on Problems of Aging, State of Minnesota, 1953-54; and was reappointed as chairman, Labor Market Research Committee, Social Science Research Council, 1952-54.

**General College**—Wayne J. Anderson served as member, committee surveying marriage counseling services in the Twin Cities, Minnesota Council of Family Life, 1953-54; president, Minneapolis First Branch, Church of Jesus Christ of Latter Day Saints, 1952-54; member, National Council of Family Relations, 1952-54.

Henry Borow was elected diplomate, American Board of Examiners in Professional Psychology, 1953; served as member, Board of Trustees, Minnesota Vocational Guidance Association, 1952-54; and convention chairman, Minnesota Psychological Association, 1954.

Edwin S. Cieslak served as president, Twin Cities Chapter, International House Association, 1953-54.

Evelyn Determan served as vice president, Minneapolis Altrusa Club (international women's service organization), 1952-54; member, Research Committee on Teaching Techniques, and member, Research Committee on Methods of Surveying Community Needs, Delta Pi Epsilon, 1953-54; member, Resolutions Committee for 1953 annual convention, Minnesota Business Education Association; and member, Library Committee, Citizens League for Greater Minneapolis, 1953-54.

J. Merle Harris was member, Council, Minneapolis Branch of United World Federalists, 1953-54; and program chairman, Minnesota Geological Society, 1953-54.

George H. McCune was named delegate to fifth annual Stephens College Audio-Visual Aids Conference, 1953.

Horace T. Morse served as chairman, Junior College Study Committee, North Central Association of Colleges and Secondary Schools, 1952-54; chairman, Committee on Social Sciences for Revision of the Graduate Record Examinations, Educational Testing Service, 1953; vice-chairman for higher education, Minnesota Commission on Vocational and Higher Education, 1952-53; chairman, Committee on Study and Research, Association of Minnesota Colleges, 1953-54; and vice president, Viking Council, Boy Scouts of America, 1954.

Alfred L. Vaughn served as member, Educational Committee, Roosevelt Branch, Minneapolis YMCA, 1952-54.

Cornelia D. Williams was member, Executive Committee, and fellow, Division of Counseling and Guidance, American Psychological Association, 1953-54; member, Board of Directors, *Journal of Counseling Psychology*, 1953-54; member, Executive Council, American College Personnel Association, 1954; and received the University of Minnesota All-University Congress Faculty Recognition Award, 1953.

**Duluth Branch**—Addison Alspach was director, Northernaires Male Chorus (Duluth civic group), 1952-53.

Clarence N. Anderson was member, and publicity chairman, Board of Directors, Duluth Mental Hygiene Clinic; and member, Duluth Council of Social Agencies.

Peter Apostolakos was member, Committee for Construction of Tests, Board of Public Examiners in Psychology, State of Minnesota, 1952-53.

Robert E. Beverley was member, Duluth Symphony Orchestra, 1952-54; clinician at Grand Marais, Minnesota, spring 1954; adjudicator at Ashland, Wisconsin, spring 1954; and adjudicator, Duluth Music Festival, spring 1954.

Warren J. Brooker was member, Board, Duluth Mental Hygiene Clinic, 1954; and member, Board of Directors, Minnesota Cancer Society, 1954.

Jeanette Bruce was member, Board, Chisholm Children's Museum; Republican party alternate, 1953 and acting judge for district, 1954.

Merle L. Bryant served as state legislative chairman and research chairman, Kappa Chapter, Delta Kappa Gamma.

Albert S. Chapman was elected to full membership in the Society of the Sigma Xi, Northwestern University Chapter, May 1954.

Arthur M. Clure served as member, Advisory Committee appointed by the Supreme Court to Formulate the Rules on Civil Procedure for the District Courts in Minnesota; member, Committee on Rules for Appellate Procedure; chairman, Minnesota Committee for the Improvement of Judicial Procedures, American Bar Association; and president, Duluth Chamber of Commerce.

Edward D. Courtney was secretary, Annual State Convention, Minnesota State Bar Association.

Raymond W. Darland was elected vice president and member, Scholarship Committee, Marshall H. and Nellie Alworth Memorial Fund, 1953-54; president, Minnesota Academy of Science, 1953-54; president, Men's Club, Endion Community Methodist Church, January 1954, and was elected to membership in the honor society of Phi Kappa Phi, Fort Hays Kansas State College, May 1954.

Emmett Davidson was member, City Charter Commission, Duluth, Minnesota, 1954.

John A. Dettman was chairman, Newsletter Committee, Minnesota Business Education Association.

Allen L. Downs was choir director, First Methodist Church, Duluth; and director, Northernaires Male Chorus of Duluth, 1953-54.

Robert J. Falk was committee member, Duluth Council of Social Agencies; member, Recreation Subcommittee, Duluth Group Workers Association; chairman, Membership Committee, Minnesota Alumni Club of Duluth.

Harlan D. Fayle was chairman, Lake Superior Section, American Chemical Society, 1953-54; and contributing editor, *Chemical Bulletin*.

Kimon Friar served as contributing critic, *New Republic*.

Ellen A. Frogner served as chairman, Committee on the Junior High School Book List, and member, Board of Directors, 1952-54, National Council of Teachers of English; and as research chairman and member, Executive Board for Minnesota, 1953-54, Delta Kappa Gamma (national honor society for women teachers).

Elizabeth Graybeal was member, Committee of Past Presidents, 1952-54, and was elected fellow, April 1954, Central District Association for Health, Physical Education, and Recreation.

Howard G. Hanson served as president, 1952, and member, Executive Board, 1952-53, Minnesota Area Association of Physics Teachers; chief scientific adviser, Radiological Group, Duluth Office of Civil Defense, 1952-54; and was awarded a research contract, Office of Ordnance Research, U. S. Army, 1953.

Harriet J. Harrison served as member, Board of Trustees, St. Luke's Hospital; and member, Advisory Committee, St. Luke's Nursing School. She was elected first vice president, Duluth Branch, American Association of University Women.

Albert G. Hess was director, Early Music Ensemble; and member, Program committee, and sectional chairman, Midwest Chapter, American Musicological Society, Spring 1954.

Mason A. Hicks was member, Duluth Citizen's Committee for Educational Television, 1952-54; and moderator, radio and television discussions, Duluth Heart Council, American Heart Association, 1953-54.

Pershing B. Hofslund was re-elected editor, *The Flicker*, and served as member, Policy Committee, Minnesota Ornithologists' Union; and was member, Duluth Zoo Advisory Committee. He was elected a member of the Society of the Sigma Xi.

Jack C. Holland was member, Board of Directors, Arrowhead Section, American Chemical Society.

Donald H. Jackson served as member, Duluth City Planning Commission, 1952-54.

Myrtle H. Johnson served as first vice president, 1952-54, and was elected president, May 1954, Matinee Musical, Inc.

Eleanor E. Kraker served as recorder, Committee on Freshman Clothing Curriculum and Studies, Ninth Annual Textiles and Clothing Conference (sponsored by federal bureau of home economics), Stillwater, Oklahoma, November 1953.

Louis J. LaBarre (Lt. Colonel) was selected as project officer, Duluth's Celebration of Armed Forces Day, May 1952.

Olga Lakela served as member, Advisory Committee, Quetico-Superior Wilderness Research Center, Basswood Lake.

Maude L. Lindquist served as member, Board of Governors, 1952-54, publications editor and program chairman, 1952-54, St. Louis County Historical Society; and member, Board, Delta Kappa Gamma, 1953-54. She was elected president, Duluth Chapter, Zonta International, 1954.

Elmer P. Magnell was elected by the Duluth Community Agency Delegates as representative in the Community Chest, 1954; served as sub-chairman, project on education of the music teachers, Music Educators National Conference; and acting chairman, Music Program, Kiwanis Club, 1953-54.

Marcella Nerbovig was elected to Pi Lambda Theta (honor society for women in education), 1953.

Ivan Nylander served as consultant, Encyclopedia Britannica, World Language Dictionary, 1954.

Theron O. Odaug was awarded the Muellhaupt Fellowship in Biology, Ohio State University, 1952-53. He served as member, Duluth Zoo Advisory Committee.

Moses Passer was participant and consultant, 1953-54, RFC Rubber Research Projects, University of Illinois and University of Akron; and has been actively engaged in research on peat for the Minnesota Iron Range Resources and Rehabilitation Commission, 1954.

Robert F. Pierce served as member, Board of Directors, Duluth Mental Hygiene Clinic, 1953-54; member, Board of Directors, Duluth Affiliate, United Cerebral Palsy Association, 1954.

Valworth R. Plumb continued to serve as contributing editor, *Journal of Educational Research* and *Journal of Experimental Education*.

Lewis J. Rickert served as member, Board of Directors, 1952-54, and vice president, 1953-54, Duluth Curling Club; member, Board of Directors, 1952-54, and chairman, Boys' Guidance Committee, 1952-54, Duluth Optimist Club; regional vice president, Northwest Lawn Tennis Association, 1952-54; secretary, Duluth Tennis Club; member, National Advisory Committee (golf), National Association of Intercollegiate Athletics; and member, Alcohol, Tobacco, and Narcotics Education Committee, Minnesota State Department of Education, 1953-54.

Hilda Schumacher was elected secretary, Second District, Minnesota Nurses Association; and secretary and member, Board, Medical and Nursing Service Bureau, 1953-54.

Richard O. Sielaff served as member, Committee on the Business Education Curriculum of the Colleges of Minnesota, State of Minnesota; and member, Committee on the Teaching of Retailing, American Marketing Association.

Arthur E. Smith served as executive secretary, 1952-54, president, June 1954, and contributing editor, *Exchange*, official publication, Minnesota Art Education Exchange; consultant, Arts and Crafts Program, and treasurer, Co-ordinating Committee, Sandstone State Hospital; member, Board of Directors, and treasurer, 1952-54, Duluth Art Institute Association.

James E. Smith was elected member, Board of Directors, 1954, Duluth Symphony Orchestra; and participated as panel member, national meeting, American String Teachers Association, Cincinnati, Ohio, 1953.

Armas Tamminen served as member, Board of Trustees, congregation secretary, and chairman, Church Education Committee, Messiah Lutheran Church, 1952-54; and chairman, Policy Committee, Arrowhead Chapter, Red Cross Home Service, 1953-54.

Fred J. Triplett was member, Board of Directors, Duluth Playhouse, 1954; member, Board of Directors, Duluth Art Institute Association, 1953-54; member, Duluth Arts for Youth Council, 1954; member, Coordinating Committee, Sandstone State Hospital, 1953-54; and contributing editor, *Exchange*, Minnesota Art Education Exchange, 1952-53.

John E. Verrill was member, Forestry Committee, Duluth Chamber of Commerce; and chairman, Constitution Drafting Committee, Northeast Section, Minnesota Association of Elementary School Principals.

Gordon O. Voss was elected supervisor and chairman, Town Board, Midway Township, St. Louis County, Minnesota; served as member, Planning Committee, annual North Central Regional Conference for Trade and Industrial Education, U. S. Office of Education.

Ward M. Wells served as president, Duluth Section, Minnesota Association for Health, Physical Education, and Recreation, 1952-53.

Leonard B. Wheat was elected to Phi Delta Kappa (national honorary educational fraternity); and served as secretary, Official Board, First Methodist Church of Duluth.

Julius F. Wolff Jr. was named chairman, St. Louis County Forestry Advisory Committee, 1954; and served as member, Conservation Curriculum Committee, State Department of Education; and member, Duluth Forestry Advisory Committee.

Chester W. Wood served as member, Board of Directors, Minnesota Association of Secondary School Principals; member, Administrative Committee, Minnesota Council for the Improvement of Secondary Education; secretary, Duluth Area Phi Delta Kappa; vice president, Duluth Kiwanis Club; director, Duluth YMCA; elder, Glen Avon Community Church; delegate, National Council of Presbyterian Men; director, Westminster Foundation of Minnesota.

Robert E. Wood had paintings exhibited in 1953-54 as follows: Walker Art Gallery, Minneapolis; Athletic Club, Duluth; Kansas State Teachers College; One Man Show, Laguna Beach, California; One Man Show, Santa Ana, California; and Newport High School Annual Purchase Exhibit.

Gerhard von Glahn served on the program committee, Midwest Conference of Political Scientists, East Lansing, Michigan, 1953.

**General Extension Division**—Audrey J. Booth was elected assistant treasurer, Minnesota Branch, National League of American Pen Women, May 1954.

Northrop Dawson, Jr., served as a member, Program Acceptance Committee, National Association of Educational Broadcasters Tape Network, 1952-54.

Betty T. Girling served as committee chairman, National Council Meeting, was named adviser for life, Alpha Epsilon Rho (radio and television honorary); and member, Selection Committee, and special consultant, Writers' Seminar, National Association of Educational Broadcasters, St. Louis, Missouri, 1954; evaluation chairman, Children's Section, 18th National Exhibition of Educational Recordings. She was elected treasurer, and member,

Executive Board, Association for Education by Radio-Television; member, Board of Directors, Save the Children Federation; member, Board of Directors, Minnesota Council of Catholic Women; member, Board of Directors, Service Club for the Handicapped; member, Board of Directors, Minneapolis Civic Playhouse; president, Alumni Chapter, and alumni adviser, Active Chapter, Zeta Phi Eta; staff adviser, Gamma Chapter, Alpha Epsilon Rho; member, Public Education Committee, St. Paul Chapter, American Association of University Women; and delegate to the National UNESCO Conference, 1953. She was elected to associate membership, Alumni Chapter, Theta Sigma Phi; and received the Minneapolis and St. Paul AFTRA Award in Children's Programs.

Dorothy S. Greenwood was cited for national award for the promotion of better understanding between the United States and the British Commonwealth.

Berten A. Holmberg was regular participant, Examining Boards, Minnesota State Civil Service Department; member, Engineering Committee, and member, Tape Acceptance Committee, National Association of Educational Broadcasters.

Burton Paulu served as secretary, 1952, chairman, Program Acceptance Committee, 1952-53, and vice president, 1953-54, National Association of Educational Broadcasters; and was appointed as Fulbright Scholar to study at University of London, September 1953 to June 1954.

Erwin C. Welke served as editor, Audio-Visual page "New Tools for Teaching" in *Minnesota Journal of Education*, Minnesota Educational Association; chairman, Publicity Committee, and advisory member, Board, Audio-Visual Coordinators Association of Minnesota; member, Minnesota Community Council Committee, Minnesota Film Council; member, Twin City Health Education Group Television Committee; and member, Audio-Visual Committee, National University Extension Association.

# THE WORK OF THE UNIVERSITY

## Colleges and Schools

### COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

The biennium 1952-54 was in one sense a period of adjustment and stabilization for the College of Science, Literature, and the Arts. The falling enrollments of the 1950 decade leveled out and started the long upswing that promises to bring a high peak eight or ten years from now. Thus, though there were minor adjustments in staff and considerable shift in the enrollment of the various years of the four-year program, the past two years represented no major upheaval in the College. Retrenchment which had resulted in a reduction of staff from 425 in 1948-49 to 379 in 1951-52 leveled off so that in 1952-53 the number of staff in terms of full-time equivalent in the College was 379, and in 1953-54 was 383. Actually, many positions were taken out of the budget, but the number of people in terms of full-time equivalent remains about the same due to the fact that higher salaried persons retiring or leaving the University were replaced with lower salaried persons often with a substantial saving in funds. Such savings have gone into increased salaries, which still are lower than they should be, and into the strengthening of the staff at certain points where enrollment pressures have been important.

As in the biennium 1950-52, retrenchment and its consequent readjustments has been at the expense of the lower ranking positions—teaching assistants and instructors. For example, in the fall quarter 1950-51 the College had 79 teaching assistants and 116 instructors. In the fall of 1953-54 this dropped to 56 teaching assistants and 102 instructors.

With the leveling off of enrollment decreases and the slight increase in 1952-53 the teaching load of the College has remained stable. For the year 1952-53 the average credit hours per staff member was 259, the same as the year 1951-52. In 1953-54 there was a slight decrease to 254. As in the biennium 1950-52 these figures do not accurately show the true picture of the College. For several years now, the enrollment decrease has occurred disproportionately in Senior College and graduate courses—courses which often cannot be discontinued without serious harm to the educational integrity of the University. As a result, enrollment in the Junior College courses has resulted in larger sections and occasionally in reduced student contact with the instructor, for example, elimination of discussion sections or reducing the number of teaching assistants available in a large course to give personal guidance and direction to students. As was pointed out in the 1950-52 biennial report, this not only has the effect of diluting the educational experience of students but in addition tends to cut off and limit the supply of graduate students and, hence, future teachers and instructors to meet the enrollment pressures that appear likely to descend on us before we are fully prepared. Little has been done in the biennium 1952-54 to add staff for desirable modification of existing instruction or for the addition of new courses to cover expanding fields of knowledge. This College is continually under pressure to provide a rich and complete program of curricular offerings for students. This it must do with limited resources and thus often neglect important fields of knowledge that should be a part of a great university's program of instruction and research.

**Interdepartmental Programs**—The College has continued its extensive development and encouragement of interdepartmental programs represented by such formal programs as the American Studies Program, the International Relations and Area Studies Program, and, in addition, has continued to evaluate each student's instructional needs in terms of the student's potential and provide for the student the best possible program of courses to achieve his objective. Though it has not been fully implemented due to lack of funds, the College has worked out a co-operative program in comparative literature which now needs only the addition of one or two qualified staff members to

make it a significant educational unit. Within existing resources of staff and curricular offerings, however, it has been possible for students to find programs combining offerings in many areas and preparing them fully for useful lives and professions. Some of these programs must of necessity be quite different from the traditional departmental major that still serves as the major channel for educational development of our student body.

**Research**—Research continues to be a very important activity of the faculty of the College. As in previous years, no measure can be given of the time and effort devoted by faculty members of the College to research interests principally because much research, particularly in the humanities and social sciences area, is done by the individual faculty member on his own in the library without any representation in budget charges or assignment of time. Indeed, the College has been most fortunate in many of its appointments where faculty members have carried on their special studies and research while at the same time undertaking a normal teaching load as well as other educational services such as counseling.

It is interesting to note, however, that both the number of special grants for research from state, federal, gift, and endowment sources has increased over the previous biennium as well as the total amount of money involved. For the three years prior to the year 1953-54 (for which final information is not yet available) the figures were as follows:

1950-51, number of grants 34, total amount \$775,522  
 1951-52, number of grants 45, total amount \$1,011,813  
 1952-53, number of grants 44, total amount \$1,134,008

Though much research in this College is carried on by the faculty member individually in his study or in the library, the past biennium reflected the continued emphasis and growth of team research. Many such projects, such as the Laboratory for Research in Social Relations, reflect this in formal organization and budget, but even in other areas various departments co-operate informally in carrying on research projects. Not only has there been co-operation between such departments of the College as sociology and psychology, political science and philosophy, but also co-operation between this College and other colleges in the University, notably the Institute of Technology, the College of Medical Sciences, and the College of Agriculture, Forestry, and Home Economics.

During the last two years the Laboratory for Research in Social Relations, a special research unit of the College of Science, Literature, and the Arts, has been supported financially by funds from the College, the Graduate School, and the Ford Foundation. The senior staff of the Laboratory is now drawn from the departments of psychology, sociology, political science, economics, education, and philosophy.

After six years of existence, the Laboratory now functions effectively as a research organization. Its work includes:

1. Studies of a theoretical nature. (Examination of the assumptions of transitivity in economic theory; development of a rigorous theory of social comparison processes.)
2. Controlled laboratory experiments. (Relation of pressures toward uniformity to competition in groups; communication in groups resulting from exposure of members to opposing arguments; voluntary seeking of information as determined by adequacy of present behavior.)
3. Studies in natural life settings. (Determinants of political participation; the role of the family in determining stability of political preference; determinants of the effectiveness of international exchange of personnel.)
4. Cross-national replications of studies. (Comparability of reactions of groups to deviates in seven different European countries; comparison between Holland and U. S. A. in sensitivity of social perception in groups.)
5. Application studies. (The application of findings concerning communication, uniformity, and restraints in groups to problems of the classroom.)

In the biennium under consideration, members of the Laboratory have published seventeen articles in technical journals. In addition, nine articles have been accepted for publication and six are in preparation.

The Laboratory is confident that the present high level of productivity will be maintained in the future.

The success of the Laboratory, the activities of the Minnesota Geological Survey (a part of this College whose report appears elsewhere), activities of the research division of the School of Journalism, and other research interests raise fundamental questions in the College. The questions revolve around the responsibility of the College for research projects financed by state support funds and whether or not the College should work toward the establishment of more research units or institutes, or whether, with these above exceptions, it should expect research to be an integral but not separately designated part of the program of each department of the College. Relations here, of course, concern the Graduate School which, for the University as a whole, controls much of the funds available for research, an arrangement which seems to have worked out well as far as research needs of this College are concerned.

**Curricular Changes**—The years 1952-54 have been years of study and, it is believed, progress but with no substantial and major changes in curriculum. The College has made a small attempt to provide more instruction in the field of film and movies, an important aspect of modern life. It has experimented during the past year with new beginning courses in languages (French, German, and Latin) aimed at bringing to the student not only a reading knowledge of the language but in addition some understanding of the history, culture, literature, and background of the people who use the language.

Extensive study has been given during the past two years to the entire problem of the curriculum of the College through the Curriculum Committee. This Committee has worked earnestly and imaginatively, concentrating its attention at first principally upon the undergraduate group requirements and their adequacy in giving the students a well-rounded general education. Through its studies and through other means it has become apparent that a fairly extensive program of evaluation of the College's program of general education is in order. This will be undertaken in the year 1954 and following.

**Student Personnel Program**—The biennium 1952-54 represented progress in strengthening the program of student personnel services in the College. Begun during the previous biennium, the policy of bringing into various college councils members of the student body of the College has been carried forward during the current biennium and has resulted in substantial improvement in the relations between the students and the faculty members of the College. Students have served effectively on various College committees and have been of assistance not only in bringing student advice and viewpoints to the faculty but in carrying back to students better understanding of college policies and rules.

While there is always turnover in the personnel of the Junior and Senior College offices, there was less of this than normal in 1952-54.

The College continues to make extensive use of the Arts College Intermediary Board and to work closely with that board. Each quarter a joint meeting of the Student Intermediary Board and the College's Advisory Committee is held for discussion of mutual problems.

While the work of the staff of the Junior and Senior College offices is devoted largely to interviewing, counseling, and advising students, a great deal of contact work with faculty members is carried on and some analysis and appraisal is made of our student population, their problems, and their needs. While the College now has no one on its staff with the primary duties of collecting, analyzing, and assembling data (and it would be desirable to have someone with these responsibilities), there is constantly some analysis and study of student personnel problems being undertaken.

In the biennium 1952-54 extensive planning and certain specific steps have been undertaken to utilize more fully, in the counseling of students, members of the faculty whose appointments are completely within one of the subject matter departments. In the past, appointments have been made jointly with departments and occasionally wholly within the administrative organization of the central college office. During the past biennium and for the years

ahead, the College is experimenting with utilizing for student personnel services faculty members attached primarily to the regular subject departments.

**School of Social Work**—During the biennium 1952-54 the School of Social Work has had noteworthy developments in several important kinds of educational and professional activities. The developments have been a succession to the long history of the School's contributions to social work education generally.

The School of Social Work, a graduate professional school, has as its objective the professional education of carefully selected students for technical and leadership positions in the field of social welfare. The School began as a course in social and civic work in 1917, and was designated as a School of Social Work in 1942. Five years later the Regents authorized the professional degree of master of social work for those successfully completing the two-year graduate sequence, and the Ph.D. degree for those successfully completing the additional requirements for that degree.

Among other noteworthy achievements in the 1952-54 biennium the following may be cited:

1. *Curriculum Study and Revision*—In a field expanding as rapidly in volume and scope as social work, there is constant need for restudy of professional curricula. During the biennium the faculty, through several committees, has designed sequences of courses in the major study areas of: (a) The social services—their structure, process, and function; (b) human growth and behavior—personal, physical, psychological, and social, with study of both normal and abnormal characteristics and patterns; such knowledge related to use by social workers; and (c) technical social work methods of social casework, social group work, social community organization work, social work administration, and social work research. Instruction in these three general areas is accompanied by concurrent field work instruction under tutorial supervision. The study and proposals of this faculty have had a significant influence upon curricula in other schools of social work in the country.

2. *Completion of Significant Research Studies*—In addition to approximately eighty student research projects offered to fulfill requirements for the master of social work degree, several large and important research projects have been completed by faculty and advanced students of the School. Illustrative of these are: (a) prediction of successful outcome of placement of children in foster care; (b) prediction factors connected with success or non-success of post-hospital social service care for the mentally ill; (c) systematization and classification of social group work practice factors in therapeutic group work practice; (d) a scale for measuring peer relationships in therapeutic groups of children; (e) a collation and analysis of social case-work theory; (f) measuring parent-child relationship changes; and (g) the relationship of role conflict to important factors in the supervisory and administrative processes in social work. Several research projects have been financed by special grants received from foundations.

3. *Restudy and Revision of the Preprofessional Curriculum*—Since 1935 the School has had a deep interest in undergraduate preprofessional education and has administered jointly with the Department of Sociology an undergraduate sequence which is the recommended preprofessional preparation for admission to graduate professional education in social work. During the biennium this sequence was restudied and a changed pattern of requirements adopted. This step has had great influence on undergraduate education for social work throughout the country.

4. *Public Service*—Members of the School's faculty have served in leadership positions in a number of the various national social work professional and educational groups. In addition to the public service rendered through the various social work organizations, the faculty has rendered a continuous service to the community through technical consultation to social agencies on social work problems; conduct of research and consultation on social agency research; conduct of in-service training institutes; consultative services to civil service and merit system agencies; and by service on agency and organization boards and committees. The faculty also has played a prominent

part in state, regional, and national conferences in the social work field and in some other adjoining professional fields such as psychiatry and public health.

The School has served Minnesota residents primarily. More than 80 per cent of the graduate enrollment during the biennium was from Minnesota. As in the past, however, students from other states and other countries were included in each class. During the biennium, 80 M.S.W. degrees and 4 Ph.D. degrees were conferred bringing the total of graduate degrees conferred since the beginning of the School to 465. Approximately 50 new graduate students were admitted each year from a group of approximately 200 applicants. At any one time during the biennium there were approximately 100 full-time and 30 part-time graduate students enrolled. These students bring to a total of approximately 1,700 the number of students from this and other universities who have entered on graduate social work study since the beginning of the School.

A factor of striking significance during the biennium is the great demand by social agency employers for the graduates of this School. On the average, every graduate at the point of receiving his degree has had six job offers in the first year of the biennium and ten in the second year. Graduates of the School have accepted positions in a wide variety of professional social work functions, including leadership and consultative positions.

**Public Administration Center**—The Graduate Training Program in Public Administration continues to be the principal activity of the Center. Twenty-six students were enrolled in the program during the biennium. The students were about equally divided between those who had had previous government experience and those without previous experience. Foreign students were admitted to the program for the first time, including students from Australia, Burma, Germany, and Pakistan. In all, 218 men and women have now been enrolled in the eighteen classes since the program was established in 1936.

During the spring quarter 1954, a survey was made of the first seventeen classes in the training program, 1936-53. This survey revealed that 54 per cent of the alumni are in government service, 3 per cent in quasi-governmental work, 11 per cent in education, 6 per cent in military service, 13 per cent in business, and 13 per cent in miscellaneous activities (mostly housewives). The median salaries of the seventeen classes range from \$4,275 for the 1952-53 class to \$12,500 for one of the early classes. Four of the seventeen classes reported median salaries in excess of \$10,000.

From its inception, the graduate training program has placed emphasis upon quality rather than quantity. It has endeavored to produce graduates capable of moving eventually into high-level career service positions. A listing of job titles of former students with graduate training in public administration who have achieved high level positions provides impressive evidence of the success of the program.

The Center continued to promote and sponsor facilities for training public employees through the General Extension Division. Six new courses in public administration were offered during the biennium, and in the fall of 1953 a program of study leading to a certificate in public administration was announced. The certificate program is designed for employees and officers of federal, state, and local government agencies in the Twin Cities area and others who desire to prepare themselves for careers in public administration. The purposes of the program are (1) to provide an understanding of the fundamentals of public administration and an opportunity to study in detail some of the problems and techniques of administration; (2) to enable each student to carry out an individual program of study designed to fit his needs; and (3) to supplement the in-service training programs of government agencies. During 1953-54, approximately 150 students were enrolled in the special public administration courses which are included in the program.

The staff of the Center has been active in the planning of the Institute on Minnesota Government and Politics which is one of the features of the 1954 Summer Session. The Institute is intended to give a broad view of the major issues of government in Minnesota. It is offered for teachers, members of civic organizations, and others interested in learning more about their government. The issues will be discussed by panels of public officials, educators, civic

leaders, and journalists under the chairmanship of University of Minnesota professors.

The research activity of the Center was devoted to a continuation of work on a series of administrative histories of departments and agencies in the Minnesota state government. The history of the Minnesota Department of Taxation was completed and submitted to the University Press for publication. The history of the Minnesota Railroad and Warehouse Commission was brought near completion.

The joint reference library in public administration materials—one of the best of its kind in the country—continued to serve public officials in the Twin Cities area as well as the University community. The library contains a carefully selected collection of some 40,000 books, documents, pamphlets, periodicals, and other materials covering every field of public administration.

The Center also functioned in a liaison capacity between national, state, and local civil service commissions and the students and staff of the University with respect to job opportunities in the public service. Announcements were received and brought to the attention of members of the University community.

The major need of the Center continues to be for fellowship funds. The universities which compete with Minnesota for students offer attractive fellowships. Public Administration fellowships are needed at Minnesota in order for the graduate training program to continue to get the most qualified students. In-service fellowships also are needed in order to aid state and local employees who desire to prepare themselves for high-level career service positions.

**School of Journalism**—Marked emphasis in the work of the School of Journalism in the 1952-54 biennium has gone to four areas:

1. Development of a five-year Bachelor's and Master's degree program, with corollary growth of graduate-level offerings;
2. Modification and reshaping of many undergraduate courses to take into account recent developments in mass communications;
3. Continued expansion of the service function of the School, especially in the short course program;
4. Continued development of the work of the Research Division.

The five-year program, inaugurated in 1952, permits superior students to arrange a plan that relates undergraduate work to a fifth year of graduate study. In addition to this program, the School has continued development of the Ph.D. program instituted in the 1950-52 biennium; to this program about a dozen selected men have been admitted. A small increase and some reshaping of graduate level courses have been effected, and the series of graduate seminars (courses numbered 200 or above) has been expanded.

Modification and reshaping of other courses follows on the intense analysis of the School's offerings made by its curriculum committee in 1950-52. Most notable alterations have been those in broadening the scope of basic work in journalistic writing, those in expanding work in advertising, and those that extend the work in the newest communications field, television. Some growth has also been accomplished in the School's already extensive offerings in courses stressing mass communications as an instrument of modern society.

The School's service function is largely implemented through its series of short courses and adult education institutes. In the last biennium the following institutes were held: Thirty-fifth and thirty-sixth annual community newspaper; seventh and eighth annual radio-TV news; fourth annual industrial editors, in addition to participation as a co-host in the national convention of industrial editors; fourth and fifth annual daily newspaper executives; second and third annual public relations; two meetings of the Minnesota High School Press Association; annual convention of the National Scholastic Press Association.

Other service functions have been the continuing consultation service offered by faculty members to newspapers, magazines, advertising enterprises, broadcasters, and others. Faculty members have engaged also in many special projects.

A third service function is the placement office the School provides both for its alumni and for communications employers in the Upper Midwest and—increasingly—in more distant areas. In the biennium the office has supplied qualified graduates in positions at all levels to employers in many parts of the country (though about half of them are in Minnesota) in all the communications fields. As in the preceding several years, the demand for Minnesota journalism graduates has exceeded the supply.

Allied with the service to professional organizations is the close co-operation offered the School by these organizations. A report by the School of Journalism Committee of the Minnesota Editorial Association in early 1954, pointing out paths by which MEA member papers could serve both themselves and the School, received national attention.

Four new scholarship funds were set up for journalism students: The annual Northwest Industrial Editors Association scholarship of \$100, the Minnesota Editorial Association scholarship with an initial grant of \$200, the annual Northwest Radio-TV News Association scholarship of \$50, and the Elliot M. Baron Memorial Award which provides a cash prize each year to a student for excellent professional service to a student publication.

Attention of the School's Research Division went to some twenty projects in readership, audience attitudes and responses, media performance, media personnel, and other phases of mass communications operations. Increasing emphasis, now that the Division is entering its second decade, is going to "pure research" and to the development of research techniques that will be useful to communications workers generally.

Two members of the School's faculty served foreign assignments, and another studied pictorial journalism methods in this country. Others served their profession in various capacities during the summer.

The Thomas Heggen Memorial Library, established in 1950 to honor the distinguished novelist-playwright graduate of the School, was expanded. A further gift of \$2,500 by the parents of Mr. Heggen made it possible to refurbish the room completely and increase its usefulness to journalism students.

The annual Twin Cities Newspaper Guild memorial lecture continued, in cooperation with the School, for its sixth and seventh year. The lecture in 1952 was given by Alan Barth, outstanding editorial writer of the *Washington Post*; that in 1953 by Eric Sevareid, Minnesota alumnus who is a Peabody award winner for his work as news analyst for the Columbia Broadcasting System.

Fourteen graduate students from eleven foreign countries undertook work in the School during the biennium.

The School, through the President and the Board of Regents, presented the annual Minnesota Award for Distinguished Service in Journalism in 1952 to Dr. Alberto Gainza Paz, exiled editor-publisher of the Buenos Aires *La Prensa*. In 1953 it went to Harry E. Rasmussen and his wife Geraldine, editor-publisher and business manager of the Austin, Minnesota, *Daily Herald*.

**Library School**—Within the 1952-54 biennium the Division of Library Instruction was reorganized as the Library School, a part of the College of Science, Literature, and the Arts. Elimination of two programs, the undergraduate major in library science and the fifth-year Bachelor's degree, has somewhat affected the form of the statistics in the following report.

Enrollment in the fall of 1951 was 115; in the fall of 1952 was 136; and in the fall of 1953 was 93. Graduate School standards of admission will probably tend to keep the enrollment somewhat lower than in earlier years.

In 1952-53, 44 students completed the B.S. in L.S. degree and 7 completed the M.A. In 1953-54, 29 completed the B.S. in L.S. and 11 completed the M.A.

In the summer of 1953, a total of 148 students enrolled in the single eight-week session. In the summer of 1954 two five-week terms were offered, with 182 enrolled in the first term and 100 in the second term. The certification program of 23 credits which prepares librarians for the public schools continues to be an important part of the summer program.

Salaries for Library School graduates have continued to rise. During 1948-50 the average starting salary was \$2,700. For 1950-52 it was \$3,000. For 1952-54 it was \$3,700. Approximately 36 per cent of our graduates have gone

into public or county library work, 36 per cent into college or university positions, 21 per cent into school libraries, and 7 per cent into special library fields.

During the biennium Professor Theodore Caplow surveyed the Division of Library Instruction, completing his report on August 18, 1952. Since that time the following changes have been made:

1. The fifth-year Bachelor's degree was eliminated (as it has now been eliminated from all but one university library school), and the Master's degree was established as the only degree granted.
2. The undergraduate major program was eliminated.
3. An instructor to teach courses for public libraries was added.
4. The Library School became a part of the College of Science, Literature, and the Arts.
5. A director was appointed on July 1, 1953.
6. An outline of the courses offered was prepared. This formed the basis for weekly meetings in 1953-54 to determine the precise nature of the Master's program to be offered in 1954-55.
7. Fourteen courses were consolidated into seven, and four new courses were added.
8. The special Summer Session of 8 weeks was changed to two five-week terms, beginning in 1954. (This makes it possible for a student to complete the Master's degree in a calendar year of four terms.)
9. A program leading to employment in special libraries was added to the curriculum.
10. The 23-credit certification program for preparing school librarians was revised with the co-operation of the state supervisor of school libraries.
11. A policy was established allowing students who have previously studied library science to take examinations in the fundamental subjects rather than requiring all students to register for prerequisite courses.

For 1952-53, E. B. Stanford served as acting director of the Library School. D. K. Berninghausen was appointed director of the Library School on July 1, 1953.

H. W. Wilson continued to add to his scholarship fund. The Blanche L. Thompson scholarship of \$250 for each of the next two years was given to the School by Minnesota school librarians.

**Center for International Relations and Area Studies**—As in the preceding biennium the work of the Center for International Relations and Area Studies has been conducted by a half-time research fellow on a nine-month appointment and a full-time secretary working under supervision of a faculty member who assumes the responsibilities of director as an additional duty. The research fellow is concerned with the planning of programs and conferences, informational services, and research projects. The secretary maintains the library of the Center, assists students and staff members who request materials or information, and performs clerical, stenographic, procurement, and accounting services. The principal services of the Center during the biennium have been the following:

1. *Library*—Continued emphasis has been placed upon the collection of periodical and pamphlet materials and a few essential reference books on current international relations. Since the funds available for purchases have been very limited (\$301.65 in the first year of the biennium, \$367.82 in the second), no attempt at comprehensiveness could be made. The object has been, rather, to provide materials which will stimulate the interest of students in recent international problems and enable them to follow the course of official and private opinion about these issues. The *New York Times* and several leading foreign papers, plus a selection of the most useful periodicals and professional journals in the international field, are regularly received. A card index of leading articles in periodicals is maintained, and a daily list of items received is posted. Many pamphlets, for the most part gratuitously obtained, come from United States Government agencies and from the United

Nations and the specialized agencies affiliated with it, as well as from information services of many foreign governments. In several cases substantial gifts of reference books have also been made by such agencies.

Much of the pamphlet material is ephemeral and can be discarded from time to time. Even so the accumulation of permanently useful books, documents, and periodical files now presents a space problem. Only reference books and current periodicals and pamphlets can be kept in the reading room; older materials are moved into a storeroom.

About 300 persons have checked out items for home use during the biennium, some of them frequently, but most students use materials in the reading room. The number of readers there during the period has been about 2,500. A few instructors have placed reserve books for courses in the Center when they could in this way be made more readily accessible to students.

2. *Meetings and Conferences*—A series of meetings concerned with international problems has been arranged for interested students, staff members, and the public. Frequently this has been done in collaboration with the student International Relations Club. Speakers have included specialists upon vocational opportunities, official representatives of foreign governments, prominent figures in public and academic life, and many others. A notable series of faculty symposia upon problems of methodology in international relations included contributions by nine University staff members from five departments. The Center has been obliged to obtain speakers gratuitously as opportunities occurred, since no funds could be allocated to honoraria. A more systematic and uniformly useful program could of course be arranged if some financial support were possible.

3. *Programs in International Relations and Area Studies*—The Center continues to provide some of the services characteristic of a department office for the interdepartmental programs in international relations, area studies, preparation for the Foreign Service, and intelligence research. A new edition of the special bulletin, *Programs in International Relations and Area Studies*, was prepared by the director and will be issued sometime during the summer. The director of the Center acted also as director (administrative officer), and the research fellow as secretary, of the interdepartmental Committee on International Relations and Area Studies, which has supervision of curricula in these fields. Records of the committee and communications concerning it are handled by the staff of the Center, which has also instituted a number of inquiries into matters of interest to the committee. A system of records of students majoring in the programs mentioned is now maintained, and an effort is being made to obtain data concerning the activities of graduates, beginning with the year 1950 but including some earlier graduates known to the staff. Responses to date have been spotty, but persistent inquiry has brought in data for about half of the graduates. This effort will be continued, and the information will be brought up to date periodically. The director of the Center has given preliminary information and counseling to nearly all majors in international relations and Foreign Service training, and to many in the other programs, and has continued to act as counselor to a large proportion of students in the former groups throughout their major studies.

There is a need for interdisciplinary courses and seminars in the several area study programs and for a few staff members to conduct them. These might also serve in part as administrative officers and research professors. It may prove more convenient to attach such staff members to the Center, whether or not it is given a formal departmental status, than to appoint them in departments representing specific disciplines. The need for such an arrangement has been accentuated by the development of the Northwest Europe Area Program, comprising subareas of concentration on the Scandinavian countries, Great Britain, France, and Germany; and by the probable emergence of an Asian Program with subarea concentration on East Asia, Southeast Asia, or South Asia. Integrating courses on an interdisciplinary basis are essential ingredients of such curricula.

4. *Research*—The director and research fellow have been engaged during the biennium in a comprehensive survey of all training and research programs, University services, and student activities at the University of Minne-

sota which are concerned with international relations. This was instituted at the request of the Carnegie Endowment for International Peace, which has stimulated similar inquiries in about 100 colleges and universities. It is intended partly as a local evaluation, partly as a nation-wide inquiry into objectives and methods. Materials have been collected by soliciting reports from many University services, questionnaires to staff members and student organizations, and personal interviews with many staff members. The results are now being collated and incorporated into a final report.

**University Gallery**—The biennium 1952-54 has been a period of sustained activity on the part of the University Gallery. During 1952-53 nineteen exhibitions were held and in 1953-54, twenty-two. Indicative of the variety is the subject matter of the exhibitions beginning with the first in 1952-53, Posters; the last in 1952-53, Story of American Glass; 1953-54 first exhibition, 20th Century American Painting; and the final one in 1953-54, Student Show.

The service activities of the Gallery are indicated by the lending of collections and reproductions to campus offices, students, and other University community groups. A total of 12,559 items were loaned in 1952-54 including study prints, 1,420 originals, and 2,477 framed reproductions loaned principally to students.

While no actual records are kept of the number of people who visit the Gallery each year, an average of 750 students per year visited the Gallery under faculty direction. This is evidence of its use for direct teaching.

Notable additions to the collection have been made. Especially significant was the establishment of the John Rood fund for the purchase of contemporary sculpture, three major pieces having already been bought during the biennium. New works separately listed have been added to the Hudson Walker collection, greatly enhancing its value. Acquisitions during the biennium consisted of 1,281 originals, 128 large color reproductions, 21,440 photographs—a total of 22,849 pieces.

Each year the Gallery collections are strengthened by the preparation and processing of materials. Also, during the biennium, 1,983 items were repaired.

The Gallery's quarters remain essentially the same, although the main fourth floor exhibit area has had a new system of fluorescent lighting installed, greatly improving the surroundings of that space. One other notable activity of the Gallery has been the circulation around the country of a comprehensive exhibit of the work of the American artist, Marsden Hartley.

**A Look Ahead**—Though the biennium 1952-54 has marked no unusual milestone in progress for the College of Science, Literature, and the Arts, there has been growth and development. A considerable amount of attention has been given by the College to the improvement of instruction, led by a faculty committee which has focused attention on the desire for and suggested means of improving instruction in all departments of the College. One specific step has been taken in strengthening facilities for mechanical aids in teaching languages with the establishment of a phonetics center and the installation of several types of equipment for reproducing language sounds and enabling students to hear spoken language through records or tape recordings. Many departments of the College have extensive programs of supervision and training for young teaching assistants and instructors, preparing them for better instructional services. In addition it has continued its encouragement of the use of the student evaluation form which in the year 1952-53 was used by almost all of the faculty of the College during the spring quarter. A comparison of these results with results from an earlier study, indicated some evidence that instruction in the College has improved. In the area of public service the members of the faculty of the College continue to be active. The number of important speaking engagements, consultantships, committee assignments, and other community services performed by the faculty of this College is impressive and is a testimony to the devotion of the faculty to the service to the state and the nation.

During the biennium, and principally during the second year, extensive study has been given to the problems that will be faced by the College when the enrollment bulge of the late 50's and early 60's begins to reflect itself in students on our doorstep. The University self-survey assignment was taken

quite seriously by departments of the College and extensive discussions resulted in reports to the dean for assimilation into an all-College report. This was done through the mechanism of a faculty self-survey committee made up largely of the members of the College's Advisory Committee which studied in great detail the reports from the departments and prepared priority lists of the various proposals for transmittal to the President's office. While it is impossible to summarize these in the space of a brief biennial report, several problems are clearly identifiable as major problems facing the College in the years ahead:

1. Improvement of faculty salaries which in general, despite moderate increases in the past few years, have not kept pace even with the increased cost of living.

2. Re-establishment of many teaching and teaching assistant positions in the College which have been lost over the past four years by successive retrenchment measures.

3. Emphasis in the College upon research and a constructive program for carrying forward the College's research objectives.

4. The need in many important areas of knowledge to add personnel capable of keeping the research and curricular interests of the College abreast of the latest developments in all branches of knowledge.

5. Adequate classroom, office, and laboratory facilities and measures for the best utilization of existing space.

Many of these areas will in the years ahead be further studied by various groups in the College. Over all, however, it appears that even though serious retrenchment has been arrested, the College has lost ground in the past four years and must now look forward to recapturing some of the ground that has been lost.—ERRETT W. McDIARMID, *dean*.

## INSTITUTE OF TECHNOLOGY

**General**—The significant actions in the Institute of Technology in the past biennium have had to be governed by two important facts: (1) retrenchment in 1952-53 and no increase in budget level in 1953-54; (2) an increase in undergraduate and graduate load during the same period.

### *Undergraduate Enrollment*

1951-52 .....	1936
1952-53 .....	2227
1953-54 .....	2358

The policies within the Institute had to be formulated within the dictates of these two somewhat opposite forces. To meet such a situation and yet maintain standards it was necessary to take a hard look at all the good things that were being done within the Institute. This analysis was made with a view to pruning, eliminating, and consolidating, where warranted, so that the necessary additional support to maintain high-caliber work in essential areas closest to the main purpose of the Institute of Technology could be found. For example, the policy within the Institute is to integrate research completely with the teaching activities and administer it through the regular academic channels, and for this reason the Engineering Experiment Station was becoming anomalous as a separate research entity even though it enjoyed an excellent reputation of providing good service in certain phases of engineering research and specialized test work to Minnesota industries. With urgent needs for additional support for mathematics, one of the main foundations of all work in technology, one had to face squarely the difficult question as to where to get the funds. It is always hard to eliminate an activity to build another but the decision had to be made. The only alternative would have been to maintain everything with a resulting general dilution. The disastrous Oak Street fire, which eliminated the majority of the Engineering Experiment Station facility overnight, precipitated the decision.

Another decision of the same type and governed by the same rigorously imposed conditions of increased enrollment and no increase in funds was involved in connection with the Technical Aid courses. This course of study, started in 1949, was extremely successful, as described in the last biennial report. The Technical Aid curriculum demonstrated that there is a real need for two-year post-high school training of a technical high-grade vocational nature. Industry's acceptance of the graduates of the Technical Aid program was such as to demonstrate a great need for this kind of technically trained personnel as well as for professional engineers. In spite of the conspicuous success of this program, the decision had to be made whether this kind of work should be supported at the expense of the professional and graduate work within the Institute of Technology and it seemed to be an inescapable conclusion that, in the Institute at least, if this choice had to be made, the support must be given to the degree and graduate courses of study.

An effort was made, also, to eliminate highly specialized curricula with very limited enrollment, not solely because such curricula are expensive to maintain but also in the belief that such a degree of specialization in undergraduate work is not warranted in engineering today. The milling curriculum in mechanical engineering, for example, was dropped as a specialized field. A similar situation of a wide variety of specialized courses offered to a small group of students existed in the School of Mines and Metallurgy, and with the cooperation of the faculty, moves have been made and are continuing towards fewer, more fundamental offerings and more utilization of suitable courses in the College of Engineering. These moves should be viewed as consolidation toward increased strength and, while precipitated by a stress of circumstances, have actually resulted in an over-all improvement in the engineering offerings and would have come about despite retrenchment, only possibly more slowly.

If the Institute is to continue to grow with the development in modern technology, it is not possible to meet the rapid changes by consolidation alone. It was also necessary to find, from the funds that could be winnowed by this pruning process, support for reorganization and new emphases. This situation is exemplified in the realignment of the work in the areas of mathematics, mechanics, and materials. For many years these fields were covered in a single Department of Mathematics and Mechanics where the interests of the faculty had to range from abstruse mathematical work to the teaching of elementary testing of materials. Both ends of this wide spectrum of activity suffered under the old organization. If the mathematical work was to be built up and, on the other hand, if the work in mechanics and materials which is also fundamental to all engineering was to be developed, it seemed clear that a split somewhere should be made.

Because of the interests and inclinations of the staff members concerned, it was decided to establish a new Department of Mechanics and Materials and a Department of Mathematics. This division was effective in 1953-54 and considerable credit reflects on the faculty members concerned in that both of the new departments resulting from the split seem to be blossoming and prospering. The Department of Mechanics and Materials has developed its own graduate program and considerable sponsored research work. It has a research laboratory (principally concerned with fatigue) which is unique in the country and is developing the important undergraduate offerings in mechanics and materials for all Institute of Technology engineers in an invigorating atmosphere of original research. The Department of Mathematics, too, now able to concentrate on mathematics, has enhanced its staff, has a growing graduate program, and has improved its own undergraduate degree program in applied mathematics, and continues its contractual research activities sponsored by the Government. It has a twofold general purpose in mind: to develop excellent teachers of mathematics and to educate applied mathematicians to carry on research work in industry and government. It is quite evident that the demand in industry for applied mathematicians will increase in the coming years, and in this connection it is of interest that two Ph.D.'s from the Institute of Technology Department of Mathematics have recently found employment within our local industries.

Another most significant step, based on the realization that the Institute itself cannot and should not attempt to do everything for everybody, is in-

volved in the common first two years of engineering which came into effect at the beginning of the past biennium. The general idea underlying this program was to put into the first two years of engineering only fundamentals such as mathematics, English, physics, chemistry, and engineering drawing, which could be taught well at smaller liberal arts colleges and junior colleges in this and other states. This it was thought would facilitate the transfer of students, who had taken these courses in other colleges, to the Institute for the more specialized and professional work here. This plan was welcomed by many of the good colleges outside of the University in the state, even though it demanded a doubling of the physics offered to their students in many cases. Already it appears, from the increased number of transfers to the third year in the Institute, that the scheme is indeed working in the desired direction.

While the common two years was adopted at first only for engineering, the School of Mines and Metallurgy has found that it comes very close to its needs, and the Physics Department has decided that the bachelor of physics degree within the Institute should have this common two years of work as the first two of its curriculum.

**Research**—In the previous biennial report some figures were quoted to show how the research work sponsored by funds outside of state funds was integrated with the teaching program and how it contributed to the total teaching and research function in the Institute of Technology. The sponsored research of this nature has continued to grow from a dollar volume of  $1\frac{1}{3}$  million in 1951-52 to about  $2\frac{1}{4}$  million in the spring of 1954. To meet the work load involved in this greatly increased research volume the number of people working exclusively on research has increased from 300 in 1951-52 to over 400 in 1953-54. A most encouraging fact is that the percentage of these numbers who are students in the University has increased from 43 per cent in 1951-52 to 55 per cent in 1953-54. This shows the positive contribution of the research program to the educational program. More and more students are being supported in research jobs which pay them to permit the continuation of their education while at the same time the research work itself is part of that education.

That sponsored research is continuing to contribute in large measure to the body of openly published new knowledge in the fields covered by the Institute is evidenced by the number of publications of the faculty which result from it. In the past year every department in the Institute has received support for research from outside funds with the single exception of the School of Mines. It is particularly gratifying to note the new support for a project in the School of Architecture. This represents a new departure for this School and points toward a future increasing emphasis on individual research and on demonstration techniques which is made possible by the assignment of architectural laboratory space to the School.

The Mines Experiment Station continues its work and, while the taconite research which has been carried on there for many years has reached the stage where three large preliminary plants are in full-time operation, it is believed that there is still much to be done in the technology of taconite treatment to keep them in competition with other sources of iron ore. At the same time it is felt that the Mines Experiment Station will in the future devote an increasing proportion of its support to research in new directions of potential benefit to the mining industry of the state.

**New Areas of Emphasis**—With the constantly changing and developing picture in technology new areas of emphasis continually develop. For example, in mathematics there is an outstanding need to strengthen competence in numerical analysis and in probability and statistics as applied to engineering problems. In architecture there is need to move toward some work in city and regional planning. In electrical and mechanical engineering, work in the important broad field of servomechanisms needs strengthening and developing, and for various of the engineering departments offerings need to be developed which will enable the graduate engineers, in whatever department, to be of service in the field of nuclear engineering. A start has been made in all these directions but they are cited as examples of the new directions which must be supported in the next years.

**Outlook and Plans for the Future**—In order to guess at the way in which the Institute of Technology should develop within the next decade it is helpful, on the one hand, to look at what is happening in the scientific and engineering schools of other institutions around the nation of the highest standing and, on the other hand, to study the increase in industrial activity here in Minnesota and attempt to project the needs of our industry in the future.

A cursory survey of this nature shows that the technological areas are receiving priority support in many universities. If the University of Minnesota Institute of Technology is to maintain and even improve its standing among the first rank schools, it will have to receive similar extensive support—support both for a building program and an increase of faculty to take care of the needs for scientists and engineers of the state and nation. An examination of the industrialization of Minnesota indicates that a greater and greater percentage of the population will be engaged in industrial and associated activity involving technological and scientific skills, and the proportion of the income of the state from this kind of activity will continue to increase rapidly. It is not sufficient to wait until the industrialization of Minnesota proceeds to the point where there will be an urgent demand for graduates in technology. That this development will take place is sufficiently clear so that plans should be made now to anticipate this need.

Normal undergraduate enrollment projections for the Institute of Technology indicate an 80 per cent increase in the next ten years. Furthermore, the increased complexity in science and engineering as applied by industry indicates that the demand for graduate students will be double this percentage. This is what must be met in the next decade and, after all, it takes the larger part of a decade to educate a graduate student in science and engineering.—ATHELSTAN F. SPILHAUS, *dean*.

## INSTITUTE OF AGRICULTURE

**Agricultural Experiment Station**—The work of the Agricultural Experiment Station continues to move forward in its attempt through applied and fundamental research to provide the answers necessary for a more efficient and better farm living.

On January 1, 1953, a new director was appointed to take over the responsibilities from the former director, now dean of the Institute of Agriculture. Several of the former "state specials" made available to various departments in the past have been combined by action of the Legislature to establish what is now known as the "General Agricultural Research Fund." The underlying principle in the allocation from this general fund has been to support, first of all, the same areas of research to essentially the same degree as in the past except for some small increases to take care of increased salaries. This change in the type of appropriation, in the judgment of the director and staff, has been entirely satisfactory principally because of the greater flexibility that the present method of appropriation of these research funds provides.

Retirements have been a major concern. While the loss of certain key people particularly in plant pathology, horticulture, soils, and veterinary medicine must be recognized, the evidence that effective replacements have been found is already manifest. The selection of such major personnel has not been easy, but the high standing of the University continues to attract top-ranking scientists.

The departmental research programs continue to be the major part of our research program although there has been an increase in the research being done on the "problem" rather than departmental basis. The success with the established group of projects in grassland agriculture at Rosemount and the legume seed production program in northern Minnesota, both of which require participation of several of the major departments of the Station, provide ample evidence of the success of coordinated research within the Station. The missing pieces for the jigsaw puzzle of research are frequently found in other departments and it is only by bringing them together and getting all of the facts before the group that gaps can be filled and places found for isolated bits of information.

This principle, therefore, has been extended to include important work in the solution of the problem resulting from the feeding of trychlorethylene soybean oilmeal which required the cooperation of the Departments of Agricultural Biochemistry, Veterinary Science, and Animal Husbandry. There is now a station committee on weather and climate which will coordinate work being done on the relation of weather to crop production and to disease and insect prevalence and control. The work on the efficiency in dairy herd management involves at least three departments—Dairy Husbandry, Agricultural Engineering, and Agricultural Economics. Several departments are interested in problems revolving around grain storage and an initial attempt was made to bring the efforts of these several departments together under one crop storage project.

Improved coordination, we believe, has also been accomplished between the branch stations and the departments on the St. Paul Campus so that the work at the branch stations is now more clearly coordinated with that at St. Paul. This maximizes the facilities available at the branch stations and expands the work of the central station. Such closer cooperation provides advantages to the branch stations through more technical aid and in some cases increased financial support and to the departments by providing additional hands and extended facilities for some of their important researches.

The principle of coordination in research has been extended also in the case of the regional research programs which have been expanded through the new Bankhead-Jones 9b3 regional funds. We believe this cooperation aids our research programs by bringing together the technicians who become stimulated and broadened through their contact with scientists in other states and by the same token the research programs are strengthened.

The Advisory Council continues to render effective service to the Institute through its study of the needs for research, teaching, and service and through its discussions with members of the staff and administrative officials. We feel that the members of the Council are acquiring a more long-time view of our problems in the Station in attempting to project our needs further into the future. This comes through an increased appreciation of the importance of fundamental research and the fact that quick answers are not, in most cases, within the realms of practicability or possibility. The Council has been of significant help in carrying the story of the needs of the Institute of Agriculture to those who are in a position to give direct aid in securing support for increased funds necessary to carry out the programs.

Important advances have been made in the addition of major buildings on the St. Paul Campus and the branch stations. The Veterinary Science Building provides more laboratories for the increased research program and teaching in this new and important branch. The new library, a key to any research activity, and a facility that is important in attracting students and major personnel, has been a real aid in increasing the effectiveness of our research program.

The addition of the new wing to the Home Economics building, while not exclusively a research facility, does release space for the badly needed expansion of research activities in home economics. The new poultry buildings provide, for the first time, adequate facilities for the study of the newer techniques of breeding used in advancing the efficiency of poultry production. They also provide for the first time opportunity for studies relating to the rapidly growing broiler industry. The head house and the additions to the greenhouse facilities have been important to the study of cereal rusts and the breeding of rust-resistant crops.

At Rosemount, significant improvements have been made in buildings. A new pole type barn provides an opportunity to better study dairy herd management. The new swine farrowing house has been a significant addition to the swine breeding research program by providing improved environmental control. The new silos at the dairy unit will make it possible to initiate studies on uses of forage crops.

No major additions have been made to the physical facilities of the branch stations, although funds provided for minor buildings and building repairs by the 1953 Legislature have made it possible to make important improvements of the Duluth machine shed, Morris greenhouse, the heating plant at Grand Rapids, and the seed house at Waseca.

The research pattern has not changed appreciably over the past two years although its emphasis has shifted from time to time as new problems arose in production, utilization, and marketing. A small increase in General Agricultural Research funds has made it possible to initiate new researches in forestry on the chemical debarking of aspen and forest management. A beginning has been made in the Department of Poultry Husbandry on studies of factors affecting the interior quality of shell eggs, and increased work on respiratory diseases in turkeys and diseases of swine has been made possible.

Additional funds available under the Bankhead-Jones 9b1-2 allotment have been used to establish the nutrition program in swine and poultry on a more permanent basis. It has also been possible to add to the work now under way on the storage of farm crops by initiating new work on the ecology of mice. Such rodents have been found to be one of the principal sources of contamination of stored grain.

The research programs of the departments have been advanced because increased funds are available. However, the established research projects, of which there are some three hundred in the Station (including the branch stations) are those that are essentially of a continuing nature. Studies of agricultural trends in agricultural economics, marketing of farm products, studies of factors affecting income on dairy farms, farm organization and operation as it relates to farm income, are covered in projects that cannot be completed in a short time. Work finished in the past two years on the influence of government programs on the price of and income from potatoes was a significant contribution from the Department of Agricultural Economics.

The studies of the heat pump in agricultural engineering promise real benefits from the application of this principle to many farm heating and cooling problems. The work in cooperation with the Department of Dairy Husbandry on loose housing and methods of milk handling are providing important information to dairymen who are hard pressed for ways of reducing costs of producing dairy products. The work on the drying of farm crops has increasing significance because of the rapidly increased mechanization of harvest operations.

The major work in the Department of Agronomy and Plant Genetics continues to be the breeding of new and improved varieties of many types of grain and forage crops. Especially important is the continual development of new hybrids of corn, and in cooperation with the Department of Entomology, the breeding for resistance to certain types of insects, particularly corn borers. A search for new varieties of wheat, particularly in cooperation with plant pathology and the branch stations, that are resistant to leaf rusts continues as relentlessly as before because of the appearance of new and virulent races of rust. The emphasis on soil conservation and improved standards of living increases the importance of forage crops for the production of livestock through improved pastures and hay and the development of superior strains of legumes adapted to this climate.

The swine breeding research in the Department of Animal Husbandry is an excellent example of advancement through research that takes years for accomplishment. The Minnesota No. 1 and No. 2 lines of swine are now well established and the development of line No. 3 is rapidly on its way.

As mentioned previously, the work in swine nutrition has been greatly enhanced through the availability of more funds. A recent dramatic demonstration of the results of long years of research has attained international recognition. This has come about through a comparison of rations recommended in 1910, 1930, and 1953. The establishment of antibiotics as a regular feed additive has come during this period. Important advances have been made also in the physiology of reproduction in bulls. Work in the physiology of reproduction in sheep is being done in cooperation with researchers in the Medical School.

Fundamental to many of the researches in other departments is the work in the Department of Agricultural Biochemistry. The isolation of a toxic protein from soybeans is an excellent example of the important work in this department. Its role in testing the various wheats for milling quality is an important example of the cooperation with another department in our research program and the service to industry in aiding in the development of

products that are acceptable to the public. The demonstration of the existence of new dietary elements through the work in fundamental nutrition is of importance to all nutritional work in human and animal fields. The information on chemical and biochemical qualities of milk constitute important contributions not only to fundamental science but to the important development of acceptable products from milk. Significant contributions have come also from the enzyme research program.

The use of twin calves in the Department of Dairy Husbandry is serving the dual function of determining the effects of management and nutrition on growth and reproduction in dairy cattle and also the effectiveness of the use of twins as a research tool in many phases of dairy production investigations. Minnesota is probably the outstanding station in studies of this type. The Department continues to be a leader in the study and development of milk products. The marketability of "nu-world" cheese, a product developed in cooperation with the University of Wisconsin has now been demonstrated. Innovations in milk drying methods have improved the stability and mixability of dry milk solids. The Minnesota Station is now outstanding in researches on the methods of handling frozen semen. The studies have been conducted in cooperation with artificial insemination organizations in this and neighboring states. The bulk handling of milk has recently been of much interest to milk producers and handlers and work is now under way in the Department to develop practical means of using this new practice.

The role of the bee in the pollination of legumes is being revealed through the contributions of the Department of Entomology to the legume seed production program. The selectivity of bees for different clones of the same variety of legume and of different legumes by different types of bees has been demonstrated. The ineffectiveness of a mechanical pollinating device has also been shown.

Fundamental to the work on insecticides are the basic studies on the physiology of insects and the structure of insect integuments. Causes of migration and increases and decreases in wildlife population have been revealed through studies of beaver and other animals. Studies of the corn borer and factors affecting resistance of varieties of corn to the corn borer continue to be important activities in this Department. The studies of various sources of contamination of grain, particularly wheat in storage, have resulted in important contributions to the solution of this problem. It has been demonstrated that this contamination may even originate to a large extent in the field as well as in the usual transportation and storage facilities. This is particularly significant at a time when increased attention is being given by the Food and Drug Administration to the contamination of grain that is to be used for human food.

The opportunity for increasing farm income and comforts through the improvement of farm woodlots and shelterbelts continues to be demonstrated by work in the School of Forestry, with the aid of the Lake States Forest Experiment Station. The work on treating fence posts has provided important information on methods of preserving different types of wood. The mechanical post driver has shown the way to cheaper fence building. Studies in wood utilization have been considerably expanded as well as the work in forest management. The longtime studies on seed source continue to show marked differences in the trees grown from seed from a variety of climates and soils. Brush control through the use of chemicals has also received considerable attention and recent invasions of the tent caterpillar have made it necessary to expand considerably the work on the forest tent caterpillar. This has been made possible through special allocations of funds from the Iron Range Resources and Rehabilitation Commission and the cooperation of the Department of Entomology.

Fundamental nutrition studies involving the effect of diet on the physiology of blood in children and the nutritional status and dietary needs of various age groups of the population continue to be sources of significant information from the School of Home Economics. New work on the serviceability of various types of clothing materials should be of real benefit to those interested in problems of clothing economy.

The Fruit Breeding Farm continues to make contributions to the market gardeners in the form of superior varieties. Recent introductions have

been the Osseo potato and the Minnesota Honey muskmelon. Tomato growers have benefited greatly from the introduction of hybrid tomato seed.

The methods of preparation for storage and the studies of varieties best adapted to freezing continue to be useful to consumers and commercial vegetable and fruit growers alike. Research on factors involved in the handling and storage of potatoes which affect their quality have furnished data which will be useful to potato growers of the Red River Valley. The cooperation with the Potato Research Station at East Grand Forks has been outstanding. A significant regional study of the methods of handling and marketing sweetcorn has just been completed and the work published.

The principal work of the Department of Plant Pathology continues to revolve around the various aspects of the problem of rusts on cereal grains. This includes a study of the various races, their occurrence, spread, and inheritance. This work is carried on in close cooperation with the Department of Agronomy and is an outstanding example of the importance of joint effort toward the solution of a major problem. Research on vegetable diseases, particularly those of potatoes, also constitutes a major phase of the work. The development of disease-resistant varieties of vegetable crops is also important to the vegetable industry. Of less direct application, but nevertheless of great fundamental importance to the control of plant diseases, is the work on the nature of the resistance to disease in plants, being conducted as a plant physiology study. This Department also plays an important role in the study of molds and factors influencing their development in stored grains.

The work of many years in the development of inbred lines of chickens in the Department of Poultry Husbandry resulted in the finding of two lines that at present show real promise for crossing between themselves and with certain other inbred lines. Studies are under way to determine what factors are important in determining meat yield in turkeys. A simple but effective means of preserving the interior quality of eggs through the use of carbon dioxide in vapor-proof containers has significant implications so far as the commercial handling of eggs is concerned. Slaughter tests are being used to study the bleeding of fowls which is important to quality preservation in storage.

The great variety of soils in Minnesota makes it important to continue studies on the effects of kinds, and methods of application, of fertilizers to the many crops grown. Important work in the fundamentals of mineral use has been made possible through the use of radioactive phosphorus in the studies of the availability of soil phosphorus to plants. Soil erosion is receiving increased attention through the initiation of studies at the Rosemount station as a part of the beef cattle-grassland project. The importance of maintaining a plant cover on soils subject to easy erosion has been clearly demonstrated. The effect of different fertilizers on pasture crops is also an important part of this project. The soils testing program continues to be a real service to the farmers of Minnesota and will provide data which will be important to soil conservation studies in combination with the information collected in the soil survey work.

The research activities in the field of veterinary medicine will be set forth in the report of the School of Veterinary Medicine. The results of these studies are outstanding.

The significance of shifts in population has been demonstrated in studies in rural sociology and the studies on the ethnic background of the population and its significance in rural society have given new information on the social customs, farm practices, and educational advancement observed in various areas of the State.

The major support for these many researches comes principally from state support through the University's maintenance appropriation and the General Agricultural Research Fund. Considerable assistance is also provided through the federal grant-in-aid program and through increasing amounts of monies made available through contracts with the U. S. Department of Agriculture, Atomic Energy Commission, U. S. Department of Public Health, and other government agencies. The ratio of nonfederal to federal support is high (Ca 6:1) which we believe it should be. Increasing support from industry and foundations attests the growing realization of the possible returns from re-

search and the confidence in the personnel and research programs at the Minnesota station.

As indicated earlier, the work at the branch stations has continued to be more closely coordinated with the departments on the St. Paul Campus. One of their important functions is to participate in the crop testing programs to provide information on the varietal adaptability in various regions and the influence of soil and climate on crop performance. The testing of cereal grains has been a long established procedure and the branch stations are important in the production of foundation seed. Recently, variety testing for horticultural crops has been stimulated in most of these stations.

While the stations all participate in those things which are particularly appropriate in their respective areas the major emphasis naturally varies from station to station. At the North Central Station, new work in forestry has been initiated in cooperation with a new member of staff who is a forest specialist. This station was the principal one involved in the development of the Minnesota No. 1 line of swine. The Minnesota 101 line of sheep was largely developed here and this work is continuing. Since the potential for this area seems to lie considerably in livestock and forage crops, studies are under way on the use of legume and grass silage.

The Northwest Station is one of the major stations involved in the development of the Minnesota No. 2 hogs and it is also cooperating in the poultry breeding work by studying the effectiveness of specialized systems of breeding. The feeding of cull potatoes has been a study of particular local importance.

The Northeast Station is working on the problem of the suitability of dairying as a major industry and is one of the stations cooperating in the development of the Minnesota No. 2 hogs. The testing of fruit varieties has recently been expanded considerably and work is now under way on pasture and silage crops.

The principal activity at the Southern Station is the special breeding work with swine, corn, and soybeans. This Station serves as the principal center for study of corn borer resistance and control.

Lamb feeding studies and methods of feeding laying hens have been two special areas of work at the West Central Station. It is also active in the improvement of the Minnesota No. 2 line of hogs.

The results of these extensive researches are made available to the public through many channels of communication. The following table lists the number of issues of the established publication series of the Experiment Station.

EXPERIMENT STATION PUBLICATIONS

		Number issued	Number of pages	Total number of copies
General series bulletins .....	1952-53	7	186	78,000
	1953-54	6	156	88,000
Technical series bulletins .....	1952-53	7	244	29,000
	1953-54	2	272	10,000
Minnesota Farm & Home Science .....	1952-53	3	60	49,500
	1953-54	3	56	49,500
Miscellaneous and technical report series....	1952-53	6	120	40,000
	1953-54	9	226	62,500
Journal series papers .....	1952-53	197	1,296	.....
	1953-54	113	386	.....

There has been an increased use of radio both through our own and commercial stations, often with the cooperation of the county agricultural agents, many of whom have regular programs. Television is continuing to use educational material and in many cases first-hand reports of the results of research. Much of the information is brought immediately to the public through the numerous short course programs on which the members of staff appear. The specialized short courses such as the swine feeders day, Rosemount field day, and the branch station field days provide opportunities also to bring results immediately to the public. Writing for popular magazines continues to be an important outlet for much of our experimental work. We continue to work

assiduously with the cooperation of the Information Service to reduce the lag in the application of our findings.

Since the ultimate goal is to enhance the efficiency and thus the net returns from farming and to improve farm living, we feel that it is important to increase our research programs at a more rapid rate. Agricultural research expenditures total only about one-eighth those of non-agricultural industry when compared with gross incomes. If it seems logical to improve the relative position of agriculture in the standard of living of its people, this ratio should be narrowed through increased research.

While modest increases were made available for the research program, these were hardly sufficient to meet the increased costs of personnel and materials, particularly when the increases were largely earmarked for particular phases of new research. This has forced some actual reduction in certain cases in our research program.

We believe we need to devote more effort to making the public aware of the advantages that can come from agricultural research for the so-called middlemen and consumers as well as agricultural producers. In cooperation with the Information Service we are working on plans for accomplishing this objective.

**Agricultural Extension Service**—During the biennium 1952-54 the cooperative relationship which had existed since 1933 between the Agricultural Extension Service in the counties with the farm bureaus was changed by legislative action. Under the new Act, as approved by the 1953 Legislature, the county farm bureaus will no longer be a legal cooperating agency in the conduct of extension work. The county Agricultural Extension Committee, which heretofore has had by law a majority of its membership made up from the officers of the county farm bureau, hereafter will be composed of nine local farm men and women, appointed by the county board of commissioners. This committee will plan the county extension program and approve the work plans of the county extension agents.

The new Act went into effect on January 1, 1954. It should be stated that the understanding leadership given by the members of the Legislature in working out this problem, and the complete cooperation extended by the state and county farm bureaus, both in effecting the separation and in the adjustments which necessarily had to follow, and then of the county boards of commissioners in providing the increased funds necessary to replace funds formerly supplied by the county farm bureaus, all combined to bring about the separation of the Agricultural Extension Service from the Farm Bureau without friction or hard feelings. The new county extension committees are fully accepting their responsibilities, and it is already apparent that the change will be of benefit to both the Farm Bureau and the Agricultural Extension Service.

A second important legislative change during the biennium was the amendment of the Smith-Lever Act of May 18, 1914, by the 1953 Congress. This had to do with the several acts passed in the years since 1914 under which funds have been appropriated for the federal support of agricultural extension work. Each of these successive acts had reached the maximum of the appropriations permitted by the law and rather than consider an additional authorizing act the Congress consolidated all previous acts in the form of an amendment to the original Smith-Lever Act. A basic change in the present legislation, however, is that the present law provides for an open-end appropriation, whereby the Congress may appropriate as much as may be deemed necessary or desirable each year for the support of extension work. The new consolidated Act with the open-end feature is a distinct improvement over previous legislation making funds available for the service.

During the biennium, appropriations for the support of agricultural extension work within the state were increased by the Legislature and by county boards of commissioners, but there was no increase in the support coming from federal funds. The 1953 Legislature increased state support by a total of \$68,500 per annum. The increased funds were used to adjust salaries of the state staff on July 1, 1953, in accord with the general salary adjustment for the University staff; to assist in the separation of the Agricultural Extension Service and the county farm bureaus in supplying equipment and expense needed in the changeover; to increase the automobile mileage rate from

5 cents to 7 cents per mile; to help defray increased housekeeping expenses of the State Office. In the counties, salaries of county extension agents were also increased.

During the same period, there was a marked increase in support provided by county governments. For the state as a whole this amounted to nearly \$100,000 for the biennium. In 1953 the counties supplied 41 per cent of county budgets for all extension work, the state 20 per cent, and the federal government 35 per cent.

At the close of the biennium there were employed 377 full-time members on the academic and civil service staffs in state and county offices, 110 of whom were employed in the State Office and 267 in the counties.

Turn-over of personnel continued to be a problem, particularly in the counties. The most serious situation was with home agents. Salaries for these workers have apparently lagged behind those being paid home economics teachers in the public schools. This, together with a short supply of home economics-trained women, has made it most difficult to keep these positions filled. To a somewhat lesser extent, the same is true of 4-H club agents. With county agricultural agents, where a substantial portion of the salary comes from county funds, there is a problem of holding up salaries in counties with a low tax base. However, on the whole it has been possible to maintain a reasonably strong field staff and to carry on an effective extension program.

During 1953 Minnesota county agricultural agents made 45,820 farm visits, had 146,585 office calls and 104,745 telephone calls. In addition to these individual contacts between farmers and extension workers, mass media were used extensively. In the counties there were 26,542 news articles published, 5,293 radio broadcasts, 40,000 telecasts, and over 400,000 bulletins distributed.

The 4-H club program had a membership of 47,504 boys and girls in 1953, with more than 6,100 adult leaders and 6,600 junior leaders assisting in carrying the work forward. During the same year, 50,226 women were enrolled in 3,241 local groups. This enrollment in home extension projects was largely in the 64 different counties where county home agents were employed.

The agricultural extension program has three general phases: the agricultural program, which is directed largely toward farm operators through the county agricultural agent; the home program, which deals particularly with the home phases of the farm family; and the 4-H program, which is directed toward the training of farm youth in agriculture, homemaking, and citizenship. Administratively, every effort is made to keep the program fully integrated and to have all workers feel a responsibility for the total program.

Agricultural extension work is a dynamic institution. Subject matter emphasis changes as science points the way, and methods change in a similar manner. The 1952-54 biennium was no exception to this general rule. In the agricultural field there have been growing demands for more attention to farm management—how to carry on a farming program under present conditions and have enough income to cover costs and meet family needs. There is active interest in new fertilizers and their uses, in new crop varieties, in better control of diseases in crops and animals, and in the chemical control of weeds. To improve the efficiency of the Soils Testing Laboratory on the St. Paul Campus, the results of soils tests are being sent to county agricultural agents in a limited number of counties. These county agents in turn make the specific fertilizer treatment recommendations for their farmers. The advantage of this procedure is that the agent is familiar with the soils of his county and the local conditions affecting the recommendations. As rapidly as possible all agricultural agents will be trained to assume this responsibility.

During the year some new approaches to working with farm families were under test. In Waseca the county agent undertook an intensive farm and home planning program with a group of families in 1951 and 1952. The object was to see what could be done in bringing about changes where the whole farm and home business was considered as a unit and planned for as such. The work was done through the county agent and with state specialist help for the first two years. Results were so satisfactory that during 1953, 55 farm families were formed into an association and are helping finance further work along this line. Another approach was taken in a group of northeastern Minnesota counties where from three to five individual farms have been selected and a farm management specialist is working with the county agents, again

analyzing the whole farm and home situation and then setting up budgets and goals to work toward. The object of these trial programs is to seek ways of giving farm management assistance and be able to reach greater numbers than is possible on a purely individual approach.

The core of the home program is still nutrition, clothing, health, and home management. But here also in addition to the basic subjects there has been a demand for a somewhat broader program. Organized classes have been held in the public policy field—on inflation, its causes and results; on the farmer's share of the consumer's dollar; on the making of wills and the descent of property; and other areas of subject matter quite foreign to the program of a few years back.

The present demands on extension workers call for more training than in earlier years. Recognizing this need more staff members took sabbatic leave or attended summer school during the biennium than in any previous similar period. In-service training, however, is depended on to keep agents abreast of modern agricultural technology. During the second year of the biennium a total of 54 conferences and training sessions were held with groups of agents for this purpose. Servicing county programs with specialist help also calls for more training on the part of the specialists than was necessary in earlier years. During 1953, three specialist positions were filled, namely farm management, soils, and agronomy. Each of the new appointees had extension experience and had earned the Ph.D. degree in his respective subject matter field.

In general it can be said that during the biennium agricultural extension workers were alert to the needs of the day and moved into the situations that confronted them with confidence and ability. There was ample evidence that the farm families on Minnesota's 200,000 farms used and appreciated their extension service and assisted in many ways to make county extension programs fully effective. There is every reason to believe that this extensive use of the service will continue in the future and expand as rapidly as trained personnel and funds for their employment become available.

**College of Agriculture, Forestry, and Home Economics**—Enrollment in the College of Agriculture, Forestry, and Home Economics declined slightly during the biennium. A total of 1,324 students was enrolled during the regular academic year 1953-54 compared with 1,391 in 1951-52. Enrollment in 1953-54 was 61.9 per cent of the post World War II peak reached in 1948-49, and 72.6 per cent of the pre-World War II peak reached in 1938-39. In the three areas of agriculture, forestry, and home economics the 1953-54 enrollment was 91.2, 44.9, and 69.7 per cent respectively of the 1938-39 figures.

A sharp decline from the post World War II peak was expected, as the bulge in enrollment at that time was due largely to returning veterans. Only 37 veterans receiving benefits under Public Laws 346 and 16 were enrolled in the spring quarter 1954 compared with 915 in the spring quarter 1948. However, the decline below the number enrolled prior to World War II raised questions as to causal factors.

A committee of the faculty was appointed in the fall of 1953 "(1) to study the trend in enrollment in the College of Agriculture, Forestry, and Home Economics, and the factors affecting the trend, and (2) to indicate the steps that should be taken to more effectively serve the young men and women who may be expected to enroll in this College in the years ahead."

This committee made a preliminary report in the spring of 1954. It is difficult to identify and measure the effect on enrollment of various causal factors. A slight decline in the number of boys of ages 18-22 on Minnesota farms between 1940 and 1950, as revealed by U. S. census reports, may account largely for the slight decline in enrollment in agriculture in 1953-54 compared with 1938-39. The decline in the number of single girls of ages 18-22 in Minnesota during this period and the availability of jobs may have contributed to the rather pronounced decline in enrollment in home economics. The sharp decline in enrollment in forestry may have been due chiefly to the fact that the enrollment in forestry was very high prior to World War II, because of an urgent demand for trained foresters during the depression. An increase in the number of forestry schools in the United States also may have been a contributing factor.

The committee also suggested many other possible reasons for the decline in enrollment. These included the lack of adequate and suitable dormitory and food facilities on the St. Paul Campus, the lack of transportation facilities between the St. Paul and Minneapolis campuses during the evening hours, inadequate resident counseling service, and the failure to interpret adequately to prospective students the various offerings on the St. Paul Campus.

The committee also was concerned with the level of enrollment in the College of Agriculture, Forestry, and Home Economics at the University of Minnesota compared with the enrollment in the same areas in other land-grant colleges and universities in the north central region. Enrollment in agriculture in this College during 1953-54 was found to be lower in relation to the farm population of the state than in any of eleven land-grant colleges and universities in the north central region for which data were available. It was only one-third as high in relation to farm population in this College as in the highest ranking state. Enrollment in home economics in this College in relation to the total population of the state was found to be in the lower one-third among the nine land-grant institutions in the north central region for which data were available. It was only one-fourth as high in relation to total population in this College as in the highest ranking state.

Enrollment in the College of Agriculture, Forestry, and Home Economics and the School of Veterinary Medicine is a matter of special concern to the University of Minnesota because it is the only institution in the state offering college-level work in all of these fields except home economics, and its School of Home Economics on the St. Paul Campus rates high among the schools of the country.

The committee report included the following recommendations, all of which were approved unanimously by the College faculty:

1. "That action be initiated to secure construction of new dormitory units on the St. Paul Campus to house both men and women college students. . . . High priority should be given to the construction of such facilities, and initial planning should begin for them immediately."

2. "That the University administration make every effort to secure legislative support" for a central food facility on the St. Paul Campus, "that high priority be given to its construction, that it be developed as an integral part of the proposed student center, and that initial planning should begin for it immediately."

3. "That the provision of limited evening inter-campus transportation be accepted as a University responsibility in a manner similar to the daytime operation of the inter-campus car or bus."

4. "That the administrative unit operating the dormitories housing College students on the St. Paul Campus conduct the student personnel program within these dormitories in a manner similar to that of Minneapolis Campus dormitories."

5. "That a standing College Committee on Relationships with Prospective Students be appointed."

The need for coordination and expansion of placement services for graduates of the College of Agriculture, Forestry, and Home Economics has been recognized by students and staff for many years. The subject was considered carefully, first by the Student-Faculty Intermediary Board, and finally by a committee of faculty and students. After intensive study of placement procedures in other colleges of the University and of the needs of our students, this committee recommended that the College increase its services in the area of student placement, and that a competent full-time staff member be employed to implement this program. This recommendation was approved by the College faculty on March 1, 1954. The person in charge of placement activities would not replace or exclude present staff interest or participation in this work, but would supplement and coordinate such activities in the various departments and schools of the College.

There were no major changes in curriculum organization during the biennium. However, consideration is being given to the need for a searching self-evaluation of the various curricula in this College. It is expected that this

will be given careful attention by the College faculty during the next biennium.

Plans for a new student union on the St. Paul Campus have been under consideration for a number of years. The program was expanded considerably during the biennium through the appointment of President Emeritus Walter C. Coffey to direct a fund-raising campaign for the proposed Union among staff, students, alumni, business firms, and other friends of the University. Funds raised in this way will supplement funds contributed over the years largely by students. It is expected that the building will be constructed during the next biennium.

A report entitled "Occupations of Graduates of the College of Agriculture, Forestry, and Home Economics, 1882-1950" was completed and distributed to high school guidance personnel, the College faculty, and others interested in agriculture, forestry, or home economics as a career. This report was based on replies to a questionnaire forwarded in 1950 to the 6,327 graduates of the College. Of this number, 4,293 responded. Among the more important findings were these: (a) Sixty-two per cent of graduates in agriculture, 58 per cent of those in home economics, and 34 per cent of those in forestry reside in Minnesota. Of the total, 55.3 per cent reside in Minnesota, and 65.2 per cent within Minnesota and the adjacent states of Wisconsin, Iowa, and North and South Dakota. Graduates are to be found in every state in the United States, and on all continents. (b) Graduates were employed in a wide range of occupational outlets. (c) Of the graduates in agriculture reporting, 11.4 per cent indicated they were farm operators, and an additional 8.2 per cent owned but did not operate farm land. (d) One in every five graduates earned an advanced degree. Approximately 15 per cent had earned a Master's degree, 4.2 per cent the Ph.D. degree.

Ten thousand copies of a four-page brochure on home economics were printed during the biennium. This is the first of a series planned for the various colleges, schools, and departments of the University. The demand for this publication exceeded expectations, so that an early reprint is in prospect. Twenty thousand copies of a four-page brochure on agriculture and twenty thousand copies of a four-page brochure on forestry will be ready for distribution early in the next biennium.

**School of Veterinary Medicine**—The biennium has been one of progress in the teaching and research activities of the faculty and staff of the School of Veterinary Medicine and Department of Veterinary Science. The third and fourth classes (48 in 1953 and 51 in 1954) to receive a complete course of training in a professional veterinary curriculum in the University of Minnesota, were graduated during this period.

Only 50 new students are admitted to the School each year. This limitation is dictated by the need for certain specialized laboratory facilities and equipment in connection with the academic training of veterinary students. An out-patient and in-patient clinic, and a farm-call (ambulatory) clinic and hospitalization service are operated for the practical instruction in the science and art of clinical veterinary medicine. These services are performed under the direct supervision of full-time faculty members. In the fall of 1952, 48 applicants were admitted and 50 in 1953. These figures include all of the qualified applicants who were residents of Minnesota, and a small number of outstanding students from neighboring states having no veterinary school. If the student enrollment in the University increases regularly within the next ten years, it is probable that the point will be reached where few, if any, nonresidents can be admitted.

Graduate training in the various categories of veterinary medicine is another function of the staff. There were 19 graduate students in the department in 1952-53 and 24 in 1953-54.

An important organizational change was effected during the biennium. Divisions were created along subject matter lines, and heads or acting heads appointed for each. The divisions include veterinary anatomy, veterinary bacteriology, veterinary pathology and parasitology, veterinary physiology and pharmacology, veterinary medicine, veterinary surgery and radiology, veterinary obstetrics, and veterinary clinics. The Department of Veterinary Science, as it is organized at present, functions effectively in the teaching of

students of the College of Agriculture, Forestry, and Home Economics and in research as part of the Agricultural Experiment Station.

During the period covered in this report, seven instructors resigned. Replacements were made in each instance. Five new instructorships were created, and one new assistant professorship was added. These positions were filled by highly qualified teachers and scientists. A study is being undertaken of the teaching, research, and service functions of the faculty and civil service personnel from the standpoint of the minimum requirement from what might be considered the real needs and also that which would be optimum. The objective of the study is the development of a table of organization which will best meet the requirements for an effective teaching and research department.

In September of 1952, the Veterinary Science Building was completed and made ready for occupancy. This building houses the divisions of veterinary bacteriology and veterinary pathology and parasitology. The administrative offices of the School and Department also are located in this building.

Along with the development of the teaching responsibilities in veterinary medicine significant progress has also been made in research by members of the staff.

Investigations were made on improved diagnostic techniques for the control of pullorum and paratyphoid infections in turkeys. Chronic respiratory infection in poultry, which is of a major economic importance to the industry, has been studied from the standpoint of the causative agent and methods of control. Extensive efforts have been directed toward determining the nature of the infectious agents and methods of reducing the serious losses due to bluecomb disease in turkeys.

Studies of brucellosis in cattle and swine have been directed toward improved diagnostic methods, particularly on the problem of non-specific serum agglutination reactions.

A study was initiated on the physiology of the bovine rumen to secure fundamental information of rumen function as a basis for a better understanding of the problem of bloat in cattle—a major deterrent to the use of legume pastures.

Investigations were conducted on a problem of posterior paralysis in the early post-parturient dairy cow, with particular emphasis on renal function and adrenal gland disturbances.

The development in recent years of a reliable diagnostic method for leptospirosis has directed attention to the importance of this disease in cattle and swine. A project for the study of this disease has been initiated.

A disease which caused major losses in an appreciable number of dairy herds in this state was found to be due to the feeding of trichloroethylene extracted soybean meal. Extensive studies have been made on the nature of the disease and efforts were directed toward determining the nature of the toxic agent as well as the cause for its development during the processing of the meal.

Diagnostic procedures and methods of treatment of trichomoniasis were developed to provide assurance of the use of bulls in artificial insemination associations which are free of the disease.

Studies were made on improved methods of anesthesia, both general and local, in domestic animals.

The development of the School of Veterinary Medicine required additional staff members beyond funds available for the biennium. As a result, individuals with primarily research duties assumed teaching responsibilities. The partially-completed physical facilities provided for the School were essentially for teaching purposes. In addition, some of the present research facilities for large animals had to be used for teaching purposes.

**Schools of Agriculture**—During the biennium the program of post high school vocational training in the School of Agriculture on the St. Paul Campus has continued to develop and to become better known throughout the State. It is now quite well understood that the schools at Morris, Crookston, Grand Rapids, and Waseca offer a vocational training program in agriculture and home economics which is designed largely for eighth-grade graduates and younger students, and that the School of Agriculture on the St. Paul Campus

points its program to the high school graduates who do not plan to go through a four-year college course for a degree.

An outstanding program for the School of Agriculture, perhaps the most outstanding in any state, is that carried on in cooperation with the Minnesota Bankers Association. In 1952-53 there were 33 students from 30 counties who received scholarships of \$200 each, making a total of \$6,600. In 1953-54 the bankers of 40 counties sent 52 young men and women to the School of Agriculture on \$200 scholarships, or a total of \$10,400. The bankers have been pleased with the program and seem to count it a privilege to work with the University in its furtherance.

The graduates of the course in practical nursing and home management are serving with distinction in many hospitals in the State. The School has now graduated four classes with a total of 42 students majoring in this field. Upon graduation from the course, girls who pass the State Board examinations qualify as licensed practical nurses. Most of these graduates have found employment in rural hospitals.

A new course that has been established since the last biennial report is one for training food technicians. Girls take six months of training in home economics in the School of Agriculture and three months at the University Hospitals working as assistants to the dietitians. The School of Agriculture is the only school in the area providing this type of training.

The program of training young men from Sweden continued during the biennium. Originally a student exchange program, war and draft regulations have made it impossible recently to send U.S. students to Sweden. However, 6 Swedish students attended the School of Agriculture in 1952-53, and 17 in 1953-54.

The change from a three- to a four-year curriculum in the outlying Schools of Agriculture, begun during the preceding biennium, was completed. This change, it is believed, will extend to students attending the Schools of Agriculture educational opportunities at least equivalent to those offered in the public high schools. The schools at Grand Rapids and Crookston completed the change during this biennium, the school at Morris in the preceding biennium, and the school at Waseca opened on the four-year basis.

The problem of maintaining an adequate staff at the Schools becomes more acute each biennium. This is especially true of staff serving on six-months' appointments. With the present comparatively high level of salaries prevailing in other schools with longer terms of employment, it is difficult to induce staff members to accept a six-month appointment. This has been met in part by offering graduate study opportunities to those who wish to work for six months and attend school for six months, and by assisting the short-term employees in securing positions for the remaining six months of the year. Some way should be found to lengthen the period of service for the present six-month members of staff.

A significant biennial event was the opening (with 42 students) of the Southern School of Agriculture on January 5, 1953. The number of students was purposely held low pending completion of the plant. In 1953-54, 129 students attended, the total being limited by dormitory space. Advance enrollment for 1954-55 demonstrates an urgent need for at least 60 more dormitory rooms to double the present capacity. Many applicants for admission will have to be placed on a waiting list.

The Southern School has carried on adult night classes (enrollment 90) in farm welding, in addition to the regular school course. During the biennium the facilities have been used for 41 farm meetings and conferences, with attendance approximately 5,700.

The Northwest School led all of the schools in student enrollment, with 438 in 1952-53, and 446 in 1953-54. However, the number of girls enrolled has been declining gradually. During the biennium a study has been made of the reasons for this decline. Conclusions indicate that the departments of Home Economics and Business Training need to be built up still more and that the scope of extracurricular activities, especially in music (including band), should be expanded. Renovation of the Home Economics Building, which began as the biennium closed, should assist in developing a better Department.

The staff at the West Central School has inaugurated a comprehensive study of the school's activities with a view toward improved service to the area. Counseling and guidance continues to be stressed. As the biennium ended, contracts had been let and construction begun on a new Home Economics Building and a new greenhouse. The latter will provide materials for the plant science classes.

Registration at the West Central School at Morris was 360 in 1952-53 and 344 in 1953-54. This slight decrease is not considered significant.

An On-the-Farm Veteran Training Program has been carried on at both the West Central and Northwest Schools. During the biennium there were 83 trainees at the West Central School and 56 at the Northwest School. The Crookston program has been discontinued, but the one at Morris will continue for at least another year, with Korean veterans replacing the World War II veterans who have completed the training to which they were entitled.

Student enrollment at the North Central School has shown a steady increase during the biennium. In 1952-53, 68 students enrolled and in 1953-54 there were 85. In addition to the increase in numbers, there was an increased interest manifested by the student body. During the past two years the School has instituted a more comprehensive testing program which is of assistance in arranging the individual student's program of study. Much new equipment has been added to the shops and new teaching and reference books to the library.

Interiors of the Dormitory and Administration Building have been entirely redecorated. Other physical plant improvements included the remodeling of the kitchen and dining hall, installation of new boilers in the Administration Building, repair of the dormitory roof and the construction of side-walks connecting the Dormitory, Administration, and Engineering buildings. The physical plant, which had deteriorated badly, is now in reasonably good condition.

A most significant aspect of the program of all of the Schools continues to be the opportunity of learning to live and work together in the dormitories, dining hall, and on the campus. Much leadership ability is developed in this way. The Schools continue to emphasize the development, in their students, of honesty, integrity, decency, and a sense of personal responsibility.

**Agricultural Short Courses**—During the biennium, 95 short courses, conferences, and special days were held on the St. Paul Campus. The combined attendance was 11,081 during 1952-53 and 12,935 during 1953-54—a total of 24,016.

As in the previous biennium, Farm and Home Week ranked first from the standpoint of attendance, with about 2,500 each year. The FFA Convention and Judging Contests ranked second, and the 4-H Club Week third. Other important short courses included Aircraft Spraying and Dusting, Animal Nutrition, Canners and Fieldmen's Short Course, Farm Income Tax, Horticulture, Liquefied Petroleum Gas Service School, Lumbermen's Short Course, Minnesota State Fire School, Soils and Fertilizer, Veterinarians, Swine Feeders Day, and Dairy Products Institute.

The Agricultural Short Course Office continues to arrange for correspondence courses and extension classes given by the Institute of Agriculture through the University Extension Division. During the biennium, 8 correspondence study courses were given with an enrollment of 129, and 12 extension classes with an enrollment of 358.

During the biennium the Agricultural Short Course Office cooperated with the Foreign Agricultural Service, Washington, D. C., by arranging short courses and conferences for visiting groups.—HAROLD MACY, *dean*.

## COLLEGE OF MEDICAL SCIENCES

In recent years the public has been showing increasing interest in having adequate medical and public health services available to all people. New hospitals are being built and equipped, public health departments are being expanded and strengthened, and research activities are better supported. In this

expansion of health services the College of Medical Sciences plays a most important role, particularly in the conduct of research and in the training of professional health personnel.

During the past biennium the training of physicians, nurses, public health specialists, hospital administrators, medical and x-ray technicians, physical therapists, occupational therapists, hospital dietitians, hospital librarians, and other health workers has been not only continued, but also expanded and improved. In addition, researches on the basic mechanisms of health and disease and on improved methods for the prevention and treatment of disease have been pursued with increasing vigor. Certain facilities have been expanded and improved and others are nearing completion. Over-all, this biennium has been a period of real achievement and continuing growth and development.

**Students**—The total enrollment of the Medical School and the number of students accepted for the freshman class remain approximately the same as in recent years. This is approximately 25 per cent above the optimum number that should be accepted with present staff and facilities.

Applications for admission to Medical School have decreased progressively from the peak following World War II until today the number of well qualified applicants is barely sufficient to fill the entering class. This is a national, not a local situation and represents a return of what might be called a relatively normal state of affairs. Incidentally, the number of residents of Minnesota who enroll in medical schools in relation to the population of the state is above the national average and is exceeded only by the states of Nebraska, New York, North Dakota, South Dakota, and Utah.

Another significant change in the student body of the Medical School is that today medical students on the average are several years younger than was true of the students a few years ago, most of whom were World War II veterans. These younger students have been deferred by Selective Service for the purpose of obtaining a medical education and therefore carry an obligation under the regular Selective Service Act for two years of military service upon completion of their medical training.

During the past biennium the medical students, with the encouragement of the faculty, but through their own agencies, the Medical Students Advisory Committee and the Medical Inter-Fraternity Council, have taken a more active interest in the affairs of the Medical School, surveying student opinion about instructional programs and individual courses and sponsoring such special activities as the Pre-Medical Students Day to visit the Medical School, the Freshman Welcome and Orientation Program and the Medical Six O'Clock Club Banquet. The new Minnesota Chapter of the Student American Medical Association sponsored supplementary instructional movies and lectures.

Over the years the Medical School course has become so long and expensive that some able and desirable students find it difficult to carry on. In view of this situation, it is encouraging to report an increase in the number of scholarships available to undergraduate medical students. Five years ago there were practically no scholarships for this group at the University of Minnesota. During the past year 47 students received scholarships totalling over \$24,000. In addition to several scholarships from private foundations, two were contributed by the Minnesota State Medical Association and four by the Group Health Association. The largest in amount and number were the fourteen contributed by the Minnesota Medical Foundation. During this same year prizes received by medical students totalled \$1,600. University loan funds were utilized in the amount of \$11,335 during the past year.

In addition, five special summer research fellowships were provided for medical students by the National Foundation for Infantile Paralysis, and four by the Lederle Laboratories Undergraduate Research Fellowship Program. Effort is being made to expand this summer research program for medical students through the National Science Foundation and the National Institutes of Health.

**Graduate Education**—The advanced training of selected physicians for the various specialties of medicine and for medical teaching and research has become a major activity and responsibility of the University. In fact, there

have been approximately 500 graduate students in the College of Medical Sciences each year of the biennium. Some of these have been in the basic science departments, some in public health, but the largest proportion has been in the various clinical specialties of medicine. In the conduct of this program the University is fortunate in having the effective cooperation of the Minneapolis General Hospital, the Minneapolis Veterans Hospital, Ancker Hospital in St. Paul, as well as several of the private hospitals in the Twin Cities.

The University of Minnesota was the first university in this country to regularize graduate training in the clinical specialties of medicine. The beginning was made approximately 40 years ago. Today, with its Medical School and Mayo Foundation, the University of Minnesota has one of the strongest graduate medical training programs in the world. The rapid expansion of this program in recent years has created some difficult problems, particularly in the provision of adequate teaching and supervisory staffs.

**Continuation Education**—The provision of educational programs to enable physicians and other professional personnel in the health fields to keep abreast of scientific developments in their particular areas of responsibility has come to be a major activity of the College of Medical Sciences. The planning of and arrangements for these programs are handled by the Department of Continuation Medical Education. The director of this department submits a detailed annual report of the various programs offered, of the number of individuals who take advantage of these educational opportunities, and of plans for the future of these programs. Copies of these reports are on file in the Office of the President and the Office of the Dean of the Medical Sciences.

These reports show that in 1952-53, 1,089 physicians attended short term continuation courses, and that in 1953-54, 1,302 physicians attended 23 similar courses presented on the University of Minnesota Campus; also that in 1952-53, 359 physicians attended 20 special seminars and clinical conferences offered in various sections of the state and that in 1953-54, 279 physicians attended 15 such conferences and seminars. In addition, this department sponsored family doctor's days at the University Hospitals which were attended by 112 physicians in 1952-53, and by 342 physicians in 1953-54. Furthermore, in each of these years there was a special symposium conducted under the sponsorship of this department. One of these, offered in September 1952 on the subject of Metabolism of Potassium was attended by 379 physicians. The one in September 1953 was devoted to Cardiovascular Physiology and Surgery and was attended by 651 physicians.

Continuation study courses for nurses, medical technologists, hospital administrators, and other paramedical personnel constitute an important aspect of the program in Continuation Medical Education. During the year 1952-53, 847 individuals other than physicians attended 11 specialized health programs at the Center for Continuation Study and 277 individuals attended 9 regional courses for nurses, medical technologists, and x-ray technicians. During the year 1953-54, 1,026 individuals attended 13 similar courses at the Center for Continuation Study and 63 individuals attended 4 regional courses in x-ray techniques.

Our program in Continuation Medical Education can now be considered a firmly established and continuing activity of the College of Medical Sciences. The problem for the future is how to make it still more effective and how to reach still more of the health personnel working in this area.

**Research**—Research studies to increase our knowledge of the fundamental processes of health and disease and to provide information which will be helpful in the improvement of health and the more effective prevention and treatment of disease are among the major responsibilities of a university medical school. In this area of scientific research the University of Minnesota plays a leading role among the medical schools of this country. Both in the basic sciences and in their application to prevention and cure of disease many important investigations are in progress. In fact the spirit of investigation and scholarship permeates every department of the College of Medical Sciences.

Funds for the support of medical research have become increasingly available over the past decade and the University of Minnesota has shared

liberally in such funds. Some of these are from government sources, particularly the various National Institutes of Health, the several armed services, and the Atomic Energy Commission, and some are from private funds, such as the American Cancer Society, the American Heart Association, the National Foundation for Infantile Paralysis, as well as other foundations, organizations, and individuals. During the fiscal year July 1, 1952 to June 30, 1953 the College of Medical Sciences received a total of \$1,684,286 for support of medical research. Of this, \$1,032,811 came from the Federal Government, \$75,000 from the Minnesota Legislature, and \$576,475 from various private sources. For the year 1953-54, final figures are not yet available but the total will be at least as great as during the previous year.

During this biennium another research professorship was given to the Medical School. This comes from the Louis W. and Maud Hill Family Foundation and is for research in enzymology and intermediary metabolism. Other special research professorships which have been continued during this biennium are: the George Chase Christian Professorship in cancer biology; the American Legion Professorship for research in rheumatic fever and heart disease in children; the George S. Clark Professorship for research in hypertension and allied conditions; the William A. O'Brien Professorship for cancer research; the Pardee Research Professorship for cancer research; the Mayo Professorship for Public Health; and a Career Investigatorship of the American Heart Association.

This group of distinguished scientists together with the regular faculty of the College of Medical Sciences are making significant contributions in their respective fields of investigations and, what in the long run may be even more important, inspiring and training able young investigators in scientific research. Many basic investigations of fundamental and far reaching importance receive little if any public attention. Others are immediately applicable to the prevention or treatment of disease. Two dramatic examples of the application of years of patient research to clinical medicine were announced during the past biennium by members of our Department of Surgery. One was Dr. John L. Lewis' operation on the heart of children under refrigeration, which slows the heart beat so that it is possible to operate on certain congenital abnormalities of the heart. The other is the development by Dr. C. W. Lillehei of a procedure by which the blood of a child can be "short circuited" through the heart and lungs of an adult, usually a parent, making it possible to operate in a bloodless field to close congenital defects in the septum between the two ventricles of the heart.

Other major health problems toward which intensive research programs at the University of Minnesota are directed include cancer, high blood pressure, arteriosclerosis and coronary disease, poliomyelitis, brucellosis, etc.

**Nursing**—The University of Minnesota School of Nursing, concerning which the director will submit a special report, feels its major responsibility to be the preparation of teachers, nurse administrators, and nurse supervisors for the hospitals and nursing schools of this north central area. The instructional programs conducted by the school include the basic nursing course leading to a bachelor of science degree, a course in practical nursing, a program in nursing education, a program in nursing administration, and numerous advanced programs in the various clinical specialties of nursing.

Nursing is an essential medical service field in which the demand for trained personnel exceeds the supply. Continuing efforts to recruit more young women for this valuable and professional career are being continued. It is agreed, however, that the needs of the public for nursing services can be met only by the increased utilization of non-professional personnel working under trained nurse supervisors.

**School of Public Health**—The University of Minnesota is the only university between the University of Michigan and the University of California that provides training for professional personnel in the field of public health. The continuing expansion of public health activities results in an increasing demand for well qualified persons in the fields of public health administration, epidemiology, vital statistics, public health engineering, public health nursing, health education, etc. The School of Public Health provides training in all

of these specialized areas as well as in the allied field of hospital administration.

The School of Public Health offers instruction also in personal health and various aspects of public health, such as school health, industrial hygiene, etc., to students from all colleges of the University. This constitutes an enormous, though we believe important, contribution to the total educational objectives of the University.

Another special activity of the School of Public Health is its Laboratory of Physiological Hygiene. The staff of this laboratory offers a certain amount of instruction, particularly at the graduate level, but has as its primary function intensive investigations concerning various health functions and problems. Currently the major programs of investigation being conducted by this laboratory are related to cardiovascular diseases, particularly arteriosclerosis and high blood pressure, and to studies of fatigue and nutrition. This laboratory is a unique institution, internationally known, and a very real credit to the University of Minnesota.

**Medical Technology and X-Ray Technology**—Minnesota was the first university to establish a formalized collegiate program for the training of medical technologists and x-ray technologists. For the modern practice of medicine well qualified medical and x-ray technologists have become a basic necessity. Minnesota's program in this field is recognized as high quality. Consequently the graduates of this course are in great demand. In fact, the number of positions available to our graduates always exceeds the available supply.

Unfortunately, the demand for these technologists is increasing as new hospitals and clinics are being built, while the number of graduates has remained essentially uniform for some years. To assist in meeting this situation the Department of Medical Technology has established, during the past biennium, a special short training program for laboratory aides and for x-ray technicians who will receive their practical training in other hospitals. These programs are offered through the General Extension Division and it is hoped will be of some assistance in meeting the personnel shortage in this important area.

**Physical Therapy and Occupational Therapy**—The development of programs in Physical Medicine and Rehabilitation has led over the past ten years to an increasing demand for trained personnel in the fields of physical therapy and occupational therapy. These training programs, both of which lead to the bachelor of science degree, are well established at the University of Minnesota, but have been handicapped by lack of facilities. With the completion of the Mayo Memorial with its special facilities for a Rehabilitation Center the number of students trained in these areas will be substantially increased.

**Other Instructional Responsibilities**—The report of the University Recorder indicates that approximately 40 per cent of the teaching done by the departments and divisions of the College of Medical Sciences is for students enrolled in other colleges of the University. These students come from colleges such as Dentistry, in which approximately two-thirds of the teaching of the first two years is done by the basic science departments of the College of Medical Sciences; from Social Work; Pharmacy; Veterinary Medicine; Education, particularly physical education; Home Economics; Engineering; the College of Science, Literature, and the Arts; and to less extent from other colleges in the University. This teaching responsibility which is not carried by many other medical schools increases substantially the need for laboratory facilities and for teaching staff in this College.

**New Facilities**—During the past biennium the completion of the Lyon Laboratories and the animal quarters and associated research laboratories in the Mayo Memorial represents substantial improvements in the research facilities available to the College of Medical Sciences.

The facilities provided by the Lyon Laboratories, which include two floors for research in cancer biology, one floor for research in histocytochemistry, and one floor for biophysics, were originally included in the tower of

the Mayo Memorial, but moved to the site between Millard Hall and Jackson Hall because it was less expensive to build in this area. It has been found, however, that this location for these laboratories offers some advantages, particularly the intimate association with the departments of Physiology and Physiological Chemistry, over the earlier proposed location. The animal laboratories which have been planned for the basement of this building will make it possible to remove the animals from the roof house of Millard Hall. This will be a great improvement and one which it is hoped can be accomplished in the near future.

The animal quarters and associated research laboratories in the ground floor of the east wing of the Mayo Memorial have been in use for several months and are proving a marvelous addition to the research facilities for the clinical departments. Unfortunately these laboratories are already too small to meet the research needs of the departments working with animals in this area. The authorized extension of these laboratories into a small area of the garage will provide some relief in this regard.

**Immediate Problems and Needs**—The near completion of the Mayo Memorial Building represents a thrilling realization of dreams, plans, and work extending over more than ten years. This building will increase enormously the facilities for effective teaching, for research, and for patient care and will be a cause for rejoicing for all concerned.

Unfortunately there still remain urgent unmet needs and problems. Most important among these is the provision for a medical-biological library on the medical campus. This is a critical need both for teaching and for research. Such a library was included in the Mayo Memorial tower but had to be eliminated because of increased costs. Another urgent need is for new and expanded facilities for the Department of Pathology. This department which in 1920 was "temporarily" housed in the Anatomy building was to have had two floors in the "Mayo tower," but these also were casualties of the inflation following the outbreak of the Korean War.

Urgently needed also is the remodeling of Millard Hall and Jackson Hall. For at least a decade the need of modernizing these buildings, which were constructed forty years ago, has been recognized. This situation, however, is made even more urgent because of the moving of certain departments from Millard Hall into the Mayo Memorial Building and the reassignment of the space which they have occupied to other activities.

For the benefit of graduate medical students, particularly those in the clinical fields who must be available for call to the hospital at all times, a housing development near the Medical School would be invaluable. It is hoped that funds for this can be obtained from private sources.

Still another urgent need is for additional support funds for staff salaries and for additions to the teaching and research staffs. The new facilities and the increased activities which they will make possible necessitate increased support. It is hoped that this can be provided for in the immediate future.

In summary, one might say that the past biennium has represented the culmination of a period of growth and development in the College of Medical Sciences and that at the moment we stand on the threshold of new opportunities for still greater achievements.—HAROLD S. DIEHL, *dean*.

## SCHOOL OF NURSING

**Programs**—During the biennium, the School of Nursing has played a signal part in meeting the nursing needs of the state through education programs in nursing, nursing education, and nursing administration outlined below. Cooperating in these programs have been other colleges of the University, hospitals, homes, and field agencies throughout the state.

### 1. Professional Curricula for Graduate Nurses

- a. The master of education program in nursing education is based upon an undergraduate major in nursing education and leads to the master of education (M.Ed.) degree.

- b. The master of nursing administration program in nursing service administration prerequisites graduate nurse experience and leads to the master of nursing administration (M.N.A.) degree.
  - c. Undergraduate curriculum for registered professional nurses provides major in nursing education and choice of minors in ward administration, science teaching in schools of nursing, child development, and clinical nursing and leads to a bachelor of science degree.
  - d. Certificate curriculum in psychiatric nursing for registered professional nurses (3 quarters) leads to a certificate in psychiatric nursing.
2. Basic Professional Curricula
    - a. Undergraduate curriculum in professional nursing\* combines general education and basic professional studies (16 quarters—4 years) and leads to bachelor of science degree.
    - b. Curriculum in professional nursing for college graduates\* (10 quarters—2½ years) leads to graduate in nursing degree.
    - c. Curricula for affiliating students from accredited schools of nursing in medical and surgical, out-patient, pediatric, and psychiatric nursing lead to certificates in designated clinical fields.
  3. Practical Nursing Curricula
    - a. Curriculum in practical nursing\*\* (4 quarters) leads to certificate in practical nursing and, when combined with one academic year in the General College, leads to the associate in arts degree.
    - b. Curriculum in practical nursing and home management\*\* (6 quarters), operated jointly with the School of Agriculture, leads to a certificate in practical nursing and home management.

In addition to the above regular programs the School (in cooperation with the General Extension Division) plans with hospital schools of nursing for a two-quarter sequence of preclinical instruction for their students; offers special courses in extension and summer sessions for registered professional nurses; and, on request, gives extramural courses.

Programs supported in part by federal, foundation, and other special funds are:

1. *Psychiatric Nursing.* Under the terms of the National Mental Health Act for support of instruction in psychiatric nursing, the School received \$35,818 during the biennium for the instructional budget. It is anticipated that future federal support of psychiatric nursing instruction may be somewhat reduced each year.
2. *Clinical Instruction.* Special funds (amounting to \$25,892) were again subscribed by foundations, groups, and individuals to maintain the essential clinical instruction through June 30, 1953, at which time the University assumed maintenance of most of this instruction, with the exception of cancer (chiefly surgical), obstetric, and rural nursing. A private donor contributed \$2,000 to the support of the position in cancer nursing until February 25, 1954, and a committee representing sending schools and receiving hospitals raised funds to support the rural nursing instruction through the biennium.
3. *Nursing Service Administration.* The W. K. Kellogg Foundation has provided support through the third year of a five-year grant of \$98,292 for the programs in nursing service administration.

**Faculty**—Faculty members, as in previous years, have played an important role in their service in local, state, national, and international professional organizations, as officers, chairmen, and members. They have planned, directed,

\* Graduates of these programs are eligible for State Board examination for licensure as registered nurses (R.N.).

\*\* Graduates of these programs are eligible for State Board examination for licensure as practical nurses (L.P.N.).

and participated in workshops, institutes, conferences, and meetings. Once again their professional activities have taken them throughout the United States as well as into Canada, Europe, and South America.

Two faculty members have had leaves of absence without salary during the biennium for graduate study, one to complete requirements for the Ph.D. degree and one to work toward a Master's degree in education.

**Students**—During the biennium 126 basic students earned the bachelor of science degree in professional nursing. In addition 93 graduate nurse students earned the bachelor of science degree in nursing education; 10 the master of education degree in nursing education; and 8 the master of nursing administration degree in nursing service. In the practical nursing program, 41 received certificates, while 22 graduated from the practical nursing and home management program. The average of the scores made by graduates of the basic professional program on the Minnesota State Board Examinations has been the highest in the state for both years of the biennium. These average scores are in comparison with the school averages of 1,419 candidates in 1952 and of 988 candidates in 1953, and are considerably above the national average scores.

During the biennium, the Nursing College Board and Powell Hall Governing Board sponsored such activities as the Powell Hall Carnival, Homecoming Float, Campus Carnival Booth, special fund-raising projects, and supplying exhibit material for the University of Minnesota booth at the American Nurses' Association Convention in Chicago (1954). These are representative of activities of the students in the School and in the nursing residence. Money from fund raising projects was used to help send one student to the International Congress of Nurses in Rio de Janeiro (1953); 10 students to the National League for Nursing and National Student Nurses' Association conventions in Cleveland (1953); and 19 students to the American Nurses' Association and National Student Nurses' Association conventions in Chicago (1954). One of our students was elected vice president of the National Student Nurses' Association at its first convention and was elected president of the National Student Nurses' Association at the second convention. This same student, as President of the National Student Nurses' Association, presented to Emperor Haile Selassie of Ethiopia on the occasion of his visit to Minnesota, a \$100 CARE book certificate in honor of his daughter Princess Tsahai who was a nurse. Among the awards to outstanding women on campus were: Order of the Gopher to two students; Order of Ski-U-Mah to six students; Chimes to two students; Order of the North Star to one student; and Mortar Board membership to two students.

**Research and Studies**—Two faculty members have completed Ph.D. dissertations based upon research in education. Among the studies made by the faculty Committee on Research was one on Career and School Selection in which each incoming class was polled on an opinionnaire. Individual faculty members and committees have made studies of facilities, curriculum problems, and follow-up of graduates. Completed also were two major studies: one of the value of the National League for Nursing Graduate Nurse Qualifying Examination and the Education Test Battery in predicting success in undergraduate nursing education programs at this University and the other a study of the performance of our basic professional nurse students on the American Public Health Association test.

**Accreditation**—Of special significance has been the approval by the National Nursing Accrediting Service of our basic professional program as preparing graduates for the practice of public health nursing. The University of Minnesota is one of only 18 schools of nursing in the United States whose graduates at present are qualified to accept public health nursing positions without further preparation and with full salary and status.

**Rural Nursing**—The rural community nursing affiliation administered by the School of Nursing has continued its steady growth. The participating schools have increased from 8 to 10, and 3 receiving rural hospitals and communities have been added. A total of 365 students received this experience in 1953. Slightly more than 25 per cent of the students have returned as graduate nurses for employment in small hospitals.

**Scholarships**—Twenty-one of the basic professional students and 6 of the practical nursing students have received state scholarships provided by the Legislature. The Minnesota Department of Public Welfare has granted 10 stipends to graduate nurses for study in psychiatric nursing. Under the National Mental Health Act, 20 graduate nurse students received stipends for study in psychiatric nursing.

**Educational Plans and Needs**—Looking ahead to the long-range educational goals, the School of Nursing accepts the responsibility to the extent its support warrants for the continuing preparation of young people to meet the health needs of the nation. Committed as the School is to service in a rapidly changing society, it faces with confidence the challenge of preparing, through its various programs, members of the nursing team to serve the nation and, indeed, the world as nurses and as citizens. It visualizes that in the coming biennium it will aim at strengthening and developing the curricula currently offered, making such revisions as seem appropriate.

In response to the increasing number of requests for preparation in administration at the baccalaureate level the faculty has recommended a program leading to a bachelor of science in nursing degree with a major in nursing service administration.

The outstanding need of the School to continue present activities in the future is for instructors in surgical nursing, obstetric and gynecological nursing, rural nursing, and psychiatric nursing. There is also urgent need for one secretarial position. The School currently carries the minimum number of secretarial and clerical staff recommended after study of the School's functions by the Civil Service Personnel Department in 1947, but both secretarial positions receive support from outside the University.—KATHARINE J. DENSFORD, *director*.

### School of Public Health

The biennium has been a period of readjustment and planning for the School of Public Health—adjustment to personnel changes and planning for the expanded program which will be possible with the completion of the Mayo Memorial.

**Teaching Program**—As in former years, the program of instruction has had a dual target—the teaching of health, physiological hygiene, and biostatistics throughout the various colleges of the University and the training of professional personnel for public health work. The former, reaching into all colleges except Law and Business Administration, has been marked by a constant growth of course load, as the student body of the University increased in size. During the biennium, 6,590 students were registered in the several courses in personal and community health and 555 students in biostatistics courses. Additional personnel is urgently needed to help carry this enormous load.

The professional courses are designed to provide training for health officers, public health engineers and nurses, health educators, and other personnel to be employed by public health agencies. This program, largely at the graduate level, brings to the School students from all parts of the United States and many foreign countries, as Minnesota is one of the few universities accredited for graduate work in this field. During the past biennium, students were registered from 40 states and 28 foreign countries.

Public health nursing, numerically the largest of these professional programs, has been taught at both the graduate and undergraduate level. During the biennium, 405 nurses have been registered in the special training programs offered by the School. For several years prior to this biennium, the number of nurses registered in the School has gradually declined. This decline continued through the first year of this biennium but in the second year, with the change in the direction of the program, there has been evidence of an increasing enrollment and the advance registration for the next academic year indicates a sharp increase. The special program in mental hygiene for public health nurses, instituted about five years ago under a grant from the U.S. Public Health Service, has been continued.

The most serious problem now facing the nursing program is that of finding suitable places for field training for the increasing enrollment. In former years extensive use has been made of field placement agencies in other states but these are being pre-empted by local schools of nursing that are attempting to incorporate public health nursing as a part of the basic nursing curriculum. Even within Minnesota field placement is becoming increasingly difficult for the same reason.

The program in hospital administration attracts many times the number of applicants that can be accepted, producing a serious problem of selection. The Minnesota program continues to receive favorable attention and review because of the combination of administration and public health courses that have been incorporated into the curriculum. The program still enjoys financial assistance from the Kellogg Fund, but this will not continue indefinitely. Takeover is essential if the program is to maintain its present high standards.

Three fields in public health need increasing attention in the years ahead: medical economics, chronic diseases, and child hygiene. The whole field of medical economics has become one of major concern in the United States. Therefore, it is surprising that within the University of Minnesota there should be no one who has given serious attention to this problem which is of concern to the fields of public health, medicine, sociology, economics, and political science.

The control of chronic diseases has become one of the major public health problems. The Laboratory of Physiological Hygiene, under the direction of Dr. Ancel Keys, is carrying on highly significant and pioneering work in the study of the development of cardiovascular degeneration. These studies have been supported in large part through grants from the U.S. Public Health Service. There is now a need for personnel interested in the development of community-wide public health programs and the control of such disease and other chronic degenerative conditions such as cancer and diabetes. Additional funds for such personnel are becoming available in the new biennium.

In the field of child and maternal health, the School has been deficient in that it has provided far less instruction than have other schools of public health. The instruction, while of high quality, has been small in quantity since reliance has been placed entirely upon part-time staff. Requests have been made to the Children's Bureau for funds to make possible the employment of full time staff in this important field.

**Research**—The outstanding research program of the School has been that of the Laboratory of Physiological Hygiene in the fields of nutrition and cardiovascular disease. These studies have attracted world-wide attention, bringing visitors from many countries. At the same time they have carried Dr. Keys and his staff to several foreign countries to collect data for comparison with those gathered here at home. In the public health engineering laboratories, studies of toxic algae and of insect vectors of food infections have been carried out by Professor Theodore Olson. Other research projects have included studies in tuberculosis assisted by the Minnesota Tuberculosis and Health Association, in hospital administration under a Kellogg grant, in poliomyelitis under grants from the National Foundation for Infantile Paralysis, and in global epidemiology under federal grants.

**Personnel**—The past biennium has seen several major personnel changes. Professor George O. Pierce resigned to join the staff of the Pan American Sanitary Bureau. Margaret Taylor resigned as director of the course in public health nursing. Her place was filled temporarily by Ann Hauser, who, during one year, did a distinguished job of teaching and directing. Beginning in September 1953, the School was fortunate in having secured for this post the services of Miss Marion Murphy, one of the outstanding persons in this field. Dr. Franklin Top resigned as professor of epidemiology in 1952 to accept the chairmanship of the Department of Preventive Medicine at the State University of Iowa. In the field of biostatistics the School made a notable addition to its staff when it secured the services of Professor Jacob Bearman, a one-time member of the Department of Mathematics.

Personnel continues to be a major problem of the School. A recent survey of schools of public health pointed out, as had previous surveys, that the staff at Minnesota carried a far heavier teaching load than in any other school.

This is reflected also in the staff-student ratio, which is the lowest of any of the schools. The heavy teaching load demanded of the staff has been a severe detriment in recruitment.

Members of the staff continue to be in demand for community service, both locally and internationally. During the biennium, staff members conducted studies in England, Switzerland, Turkey, Finland, Yugoslavia, Egypt, Italy, Spain, Brazil, and Korea. Many staff members have given freely of their time to serve on committees at federal, state, and local levels. These are all important contributions which add to the prestige of the School and enrich the experiences that the teacher can share with the student, but at the same time they add materially to the heavy teaching burden.

**Physical Plant**—Ever since its establishment, the School of Public Health has operated in improvised quarters, greatly impeding the teaching program. During recent years, the School has been scattered in five different buildings, including space loaned by the State Board of Health. With the completion of the Mayo Memorial, the School will for the first time occupy suitable quarters. will have adequate laboratories and, except for the Laboratory of Physiological Hygiene, will be brought together in one place. The latter laboratory should ultimately find more suitable housing than its present quarters beneath the Stadium.—GAYLORD W. ANDERSON, M.D., director.

### University of Minnesota Hospitals

The University of Minnesota Hospitals was established to furnish a means for the University of Minnesota to train medical, nursing, and other students in the medical auxiliary field in the disciplines of medicine. (See *President's Report, 1948-50*, for further details concerning the history and administration of the University Hospitals—a series of hospitals which, with the Variety Club Heart Hospital, have a rated capacity of 530 patients.)

A new child psychiatric unit, eventually to provide patient space for twenty-four patients and an out-patient service, was opened on October 1, 1952. Funds have been provided by the Legislature for the operation of this unit on a limited scale, and hopes are strong that a complete unit will be made available for the next biennium.

After several years of planning and delays due principally to the advance in costs of construction, the Mayo Memorial is now a reality. The Mayo addition provides much needed space for an expanded research and teaching program and also 105 beds as part of the in-patient service. A physical rehabilitation center occupies two floors in the tower of the building. Facilities are available for the School of Public Health, Department of Bacteriology, Department of Continuation Medical Education, and the administrative offices of the dean and several other departments of the College of Medical Sciences. With these expanded facilities the College of Medical Sciences will be able to make a greater contribution to the health needs of the citizens of Minnesota in addition to making its professional contribution to the general field of medicine.

Often the question arises, "Just how large should the University Hospitals be?" The University and the faculty of the College of Medical Sciences agree that the Hospitals should be large enough to do their job of teaching and investigation and research and—no larger. The Hospitals should have the support of the medical profession in the state so that enough patients are sent to it by physicians in the home communities to assure a well-rounded clinical service in both the in-patient and out-patient as well as the special services for the more than 1,200 students involved in training programs. This necessitates many contacts with patients that do not usually occur in most hospitals. Because all clinical training is based upon preceptorship ideals and standards, performance of patient care must be of the best.

The University Hospitals presents a great competitive unit for the funds of the state that are available for education. Consequently the University would not maintain the Hospitals were they not essential to the training program of professional personnel for the care of the sick. Furthermore, the University Hospitals studiously avoids competition with private practice.

**Admission**—In applying for admission to the Hospitals, it is required that the patient be referred by his family physician or by a physician in his local community. This avoids the criticism that the Hospitals or the clinics are taking patients away from private practitioners.

Patients are classified according to their ability to pay as County, Per Diem, Teaching and Research, Sixty Fund, Eustis, Rehabilitation, Multiple Sclerosis, Muscular Dystrophy, Private and, in the case of the Heart Hospital, the Variety Club of the Northwest Fund. No distinction is made between the various classes in the treatment or privileges afforded.

*County* patients are those who are totally unable to pay. Their expenses are shared equally by their county and the state.

*Per Diem* patients are those who cannot afford to pay for the services of both a private physician and a private hospital. They are required to pay their clinic or hospital expenses only, no charge being made for the professional services of the staff.

*Teaching and Research* patients are primarily destitute unmarried obstetrical patients who are unable to avail themselves of county papers.

The *Sixty Fund* is a special grant from the Legislature which is used to hospitalize indigent psychiatric patients for treatment, teaching, and research purposes.

The *Child Psychiatric Fund* is a special grant from the Legislature which is used to hospitalize indigent children with psychiatric problems for treatment, teaching, and research purposes.

The *Eustis Fund* was set up by William Henry Eustis to care for indigent children under 16 years of age.

The *Rehabilitation Fund* is a fund provided by the Legislature, through the Department of Rehabilitation and Physical Medicine, to aid in the physical rehabilitation of patients.

The *Multiple Sclerosis Diagnostic Fund*, in the sum of \$10,000, was provided for each year of a two-year period to assist in financing the multiple sclerosis clinic.

The *Cerebral Palsy Fund* was provided by the Cerebral Palsy Association of Minnesota to assist in the diagnosis and treatment of people afflicted with cerebral palsy.

*Private* patients, limited in number, are admitted as a convenience to the senior staff. They are usually referred cases from other doctors in the state.

The *Variety Club of the Northwest Fund* is a special annual gift from the Variety Club to assist in the care of patients from any of the communities in the Club area which includes Minnesota, North Dakota, South Dakota, parts of Wisconsin, or any other area indicated by the Club.

*University Health Service* patients are not considered as being Hospitals patients even though a Hospitals intern is assigned to that service. The Health Service is a service institution maintained by the University with a director, staff, and budget of its own.

**Multiple Sclerosis Clinic**—This clinic was opened under the auspices of the Division of Neurology on July 1, 1953 with Dr. A. B. Baker as director. The chief functions of the clinic were designed as follows:

(1) *Diagnostic*—The Division of Neurology has for a long time been impressed with the fact that a sizeable number of patients who carry the diagnosis of multiple sclerosis are actually suffering from some other disease. One of the chief purposes of this clinic was the detection of these cases so that treatment appropriate to their disease may be instituted.

(2) *Therapeutic*—All patients were to be placed on a therapeutic regime and followed either in the Multiple Sclerosis Clinic or by their own local physician. The evaluation of new therapeutic agents is one of the prime functions of the clinic.

(3) *Research*—The collection and active follow-up of a large group of cases of multiple sclerosis will make available an abundance of material for clinical research.

During the first 14 months of operation, 166 patients have been examined. Of these, 102 were initially seen as out-patients and 64 were first encountered

on the In-Patient Neurology Service. Of the 102 out-patients, 20 were subsequently admitted to the hospital for special diagnostic or therapeutic procedures.

The diagnosis of multiple sclerosis was confirmed in 119 (72 per cent) of the patients. Eighty of these were female and 39 were males. The average age at the time of his initial clinic visit was 40 years, and the average age at the onset of the disease was 30 years. This means that during the first year we have been seeing a group of patients who have had the disease on the average of 10 years. It is anticipated that a greater percentage of earlier cases will be seen in the future.

A total of 270 out-patient visits are recorded for the clinic. The follow-ups are largely confined to those patients in whom the diagnosis of multiple sclerosis was confirmed.

In addition to trying the various treatments suggested for this illness, an attempt is being made to find laboratory procedures which will make more specific and reliable the diagnosis of this illness.

In its first year, 29 per cent of the patients referred to the clinic with a diagnosis of multiple sclerosis have proven to have some other condition, many having conditions which at the present time can be treated. Treatment has been recommended in a large number of cases and in many of these, complete recovery has resulted. It is important that we continue such a service to discover these cases. In addition, it is important that further attempts be made to find better methods for diagnosis and treatment than are presently available.

**In-Patient Department**—The number of patients admitted was 11,866 for the year 1952-53 and 11,836 for 1953-54. The total number of days of hospital treatment aggregated 159,764 for 1952-53 and 156,105 for 1953-54. The average number of days per patient stay was 13.5 in 1952-53 and 13.2 in 1953-54. Deaths for 1953-54 numbered 571 as compared with 572 the previous year. This is a mortality percentage of 4.8—the same as for 1952-53. (The figure for deaths includes stillbirths and coroner's cases.) Post mortems for the year 1952-53 numbered 446 and in 1953-54, the number was 443—an average for each year of 82 per cent of deaths. The daily average number of patients was 437.7 in 1952-53, and 427.7 in 1953-54. Surgical operations performed during the year 1952-53 aggregated 7,334, and during 1953-54, 8,205—an increase of 871.

**Out-Patient Department**—The number of new patient visits in 1952-53 was 16,870 in 1953-54, 16,924. Total patient visits for 1952-53 were 96,932 and for 1953-54, 101,101.

**General Comments**—The In-Patient service showed a decrease of 3,659 patient days from the previous year, and the Out-Patient Department showed an increase of 4,139 visits.

The Psychopathic Department admitted 302 patients during 1953-54 and 284 in 1952-53. The patients in the Psychopathic Hospital used 10,379 patient days in 1953-54 as compared with 9,744 in 1952-53. (These figures are from the Admission Department rather than from the bookkeeping report.) The difference is accounted for by the fact that patients transferred to another service may still be housed on Station 60, and the Bookkeeping Department carries them on the psychiatric service.

The waiting list of the Hospitals showed 132 patients on July 1.

In the Out-Patient Department the cost per patient visit was \$4.84 in 1953-54 and \$4.67 in 1952-53—an increase of 17 cents per patient visit. The cost of operating the In-Patient Department was \$24.36 in 1953-54 and \$22.75 in 1952-53, an increase of \$1.61 per patient day.

The X-Ray Department reports 67,696 procedures for the year 1953-54 as compared with 63,391 for 1952-53.

The Department of X-Ray Therapy gave 11,639 deep therapy treatments in 1953-54 as against 9,333 in 1952-53. There were 918 superficial therapy treatments given in 1953-54 as compared with 1,066 in 1952-53. Phillips Contact Therapy treatments numbered 135 in 1953-54 as against 86 in 1952-53. There were 158 radium treatments given in 1953-54 and 165 in 1952-53. The total number of Radon treatments in 1953-54 was 168 as against 143 in 1952-53. In the Isotope Laboratory, 781 treatments were given in 1953-54 as compared with

## COMPARATIVE TWELVE-MONTHS REPORT—IN-PATIENT DEPARTMENT

	1952-53	1953-54
<b>Total patients admitted</b>		
County (A)	4,392	4,177
Pay and per diem (B, D, F)	5,689	5,845
Health Service	1,090	1,049
Psychiatry	198	127
Psychiatry (pay and per diem)	181	174
Child psychiatry		77
Child psychiatry (pay and per diem)		76
Free	125	107
Eustis	165	178
Variety Club Fund	26	26
	<b>11,866</b>	<b>11,836</b>
<b>Total patients treated (discharged)</b>		
County (A)	4,489	4,339
Pay and per diem (B, D, F)	5,549	5,625
Health Service	1,084	1,054
Psychiatry	234	162
Psychiatry (pay and per diem)	158	156
Child psychiatry		84
Child psychiatry (pay and per diem)		67
Free	128	107
Eustis	180	194
Variety Club Fund	31	30
	<b>11,853</b>	<b>11,818</b>
<b>Total days hospital care</b>		
County (A)	79,077	75,414
Pay and per diem (B, D, F)	58,850	58,932
Health Service	4,016	3,791
Psychiatry	6,787	5,157
Psychiatry (pay and per diem) (B, D)	6,410	5,222
Child psychiatry		2,176
Child psychiatry (pay and per diem) (B, D)		1,451
Free	1,392	1,219
Eustis	2,766	2,477
Variety Club Fund	466	266
	<b>159,764</b>	<b>156,105</b>
<b>Average days per patient</b>		
County (A)	18	18
Pay and per diem (B, D, F)	10.3	10.1
Health Service	3.7	3.6
Psychiatry	34.3	40.6
Psychiatry (pay and per diem) (B, D)	30.4	41.4
Child psychiatry		28.1
Child psychiatry (pay and per diem) (B, D)		19.1
Free	11.1	11.5
Eustis	16.8	13.9
Variety Club Fund	17.9	10.2
<b>Average length of stay per patient</b>	<b>13.5</b>	<b>13.2</b>
<b>Daily average number of patients</b>		
County (A)	216.7	206.6
Pay and per diem (B, D, F)	161.2	161.4
Health Service	11.0	10.4
Psychiatry	18.6	14.1
Psychiatry (pay and per diem) (B, D)	17.6	14.3
Child psychiatry		6.0
Child psychiatry (pay and per diem) (B, D)		4.0
Free	3.8	3.3
Eustis	7.6	6.9
Variety Club Fund	1.3	.7
<b>Daily average census for hospitals</b>	<b>437.7</b>	<b>427.7</b>

961 in 1952-53. Phosphorus treatments were initiated this year and numbered 44.

The number of hospital prescriptions filled was 146,660 in 1952-53 and in 1953-54 the number increased to 150,606.

The Laboratory made 578,230 determinations during 1953-54 as compared with 530,846 the previous year.

The Physical Therapy Department reports 20,787 treatments for 1953-54 as against 28,493 in 1952-53.

**In Appreciation**—The Administration of the Hospitals wishes to thank the Variety Club for their support to the Variety Club Heart Hospital; the Uni-

## COMPARATIVE TWELVE-MONTHS REPORT—OUT-PATIENT DEPARTMENT

Service	New Patients		Revisits		Totals	
	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54
<b>Medicine</b>						
General	3,250	3,096	12,496	10,982	15,746	14,078
Allergy		20		342		362
Arthritis		27		1,043		1,070
Cardiac (adult)	454	328	2,171	1,694	2,625	2,022
CMC (Combined Medical Clinic)				111		111
Chest	70	7	338	306	408	313
Diabetes	52	65	1,085	910	1,137	975
Gastro-intestinal	89	11	188	287	277	298
Hematology		7		322		329
Metabolism	29	30	875	744	904	774
Dermatology and Syphilology	459	373	3,447	3,569	3,906	3,942
<b>Neurology</b>						
General	538	501	1,750	1,210	2,288	1,711
Convulsive disorder				281		281
Multiple Sclerosis		74		171		245
Parkinson		1		144		145
Psychiatry	277	320	1,879	2,065	2,156	2,385
<b>Surgery</b>						
General	817	625	4,495	4,310	5,312	4,935
Plastic	72	48	458	457	530	505
Proctology	307	390	715	1,398	1,022	1,788
Tumor	278	258	3,088	3,071	3,366	3,329
Orthopedic	455	345	1,110	1,180	1,565	1,525
Urology—Female	125	195	745	847	870	1,042
Urology—Male	427	313	1,764	1,864	2,191	2,177
Neurosurgery	70	94	537	501	607	595
<b>Eye</b>						
General	852	747	3,732	3,670	4,584	4,417
Refraction			810	841	810	841
Squint	2		303	322	305	322
Ear, Nose, and Throat	715	721	2,066	2,265	2,781	2,986
Audiology		170		184		354
<b>Gynecology</b>						
General	439	503	1,600	1,506	2,039	2,009
Gynecology Tumor	82	76	1,234	1,383	1,316	1,459
Obstetrics	222	299	1,396	1,479	1,618	1,778
Night Obstetrics	12	10	145	261	157	271
<b>Pediatrics</b>						
General	1,069	1,090	4,924	5,025	5,993	6,115
Allergy		20		160		180
Cardiac	455	337	1,314	1,222	1,769	1,559
Convulsive Seizure		38		141		179
Endocrine		5		67		72
Child Psychiatry	23	174	420	362	443	536
Speech	9	60	48	163	57	223
Well Baby		7	301	254	301	261
Emergency W-212	2,096	1,923	9,385	9,737	11,481	11,660
Nutrition	24	337	269	117	293	454
Dental	187	93	1,916	2,242	2,103	2,335
Polio	110	3	307	258	417	261
North	2,749	2,574	12,563	12,645	15,312	15,219
Miscellaneous (Private)		609		2,064		2,673
Totals	16,870	16,924	80,092	84,177	96,962	101,101

versity Faculty Women's Club who have continued their generous efforts in behalf of our patients; the Crippled Child Relief, the Minnesota Society for Crippled Children and Disabled Adults, the State Division of Social Welfare and the County Welfare Boards for their assistance; the various nursing homes for their cooperation; the Traffic Club who year after year continues to provide entertainment, gifts, and cheer to our patients at Christmas; the Sunshine Society for their contributions; the Camp Fire Girls, the Girl Scouts, the Needlework Guild, the Junior League, the Minneapolis Council of Church Women, the Junior Red Cross, the Volunteer Service Bureau, the Alpha Phi sorority and the many other organizations and individuals who have contributed to the welfare of our patients. We wish to express our sincere appreciation to our corps of Volunteers working at information desks and in patient areas. We wish to thank the many people throughout the state who have contributed to the Heart Fund and the Cancer Fund during the past year.—RAY M. AMBERG, *director*.

—HAROLD S. DIEHL, *dean*.

## SCHOOL OF DENTISTRY

**Dental Assistant Program**—The School of Dentistry has added a new program during this biennium. It is a Dental Assistant Program and is a joint endeavor with the General College. This one-year program was originated as a result of requests by the profession for trained assistants and more especially because of our own conviction that the program would provide a means of demonstrating to our dental students the value of an assistant in improving the amount and quality of the services he could provide to the public.

Background college courses are taken in the University's General College where emphasis is placed on developing relationships between fields of knowledge as well as on subject matter. Prospective dental assistants enroll for work in writing laboratory, business writing, speech laboratory, human biology, practical applications of psychology, and bookkeeping. Dental assisting courses then include lectures and laboratory experience in dental anatomy, dental materials, techniques, and the care and use of dental equipment. The first quarter of academic work is designed to prepare the student for the actual experience of clinical dental assisting which continues through the second and third quarters of the program. Areas of experience include assisting senior dental students and staff in crown and bridge, operative dentistry, oral hygiene and preventive dentistry, orthodontia, pedodontia, periodontia, radiology, and surgery.

The student who satisfactorily completes the work of the Dental Assistant Program is awarded a certificate. Additional work is not required to qualify as a dental assistant, but a student who wishes to earn a college degree in addition to the certificate may do so by registering for one more year of course work in the General College. The General College offers a two-year program of general education leading to the degree of associate in arts. The work of the one-year Dental Assistant Program may be applied toward satisfying approximately one-half of the credit requirements for this degree. The additional year of course work necessary for earning the degree may be taken either before or after the year spent in the Dental Assistant Program.

**Students**—The number of well qualified resident students applying for dentistry has diminished somewhat during this biennium. However, classes have been filled to capacity (100) by accepting a few more students, chiefly from the Dakotas and Montana where there are no dental schools. Statistical studies of the numbers and ages of dentists in Minnesota indicate that before long we will face a decrease in the dentist population of this state. However, with the present space allocation it is not possible to increase the size of the entering class. The present building was intended to house three classes of 80 and we are now accepting 100 students while the course has increased from three to four years adding another class to the facilities.

Normally about 50 girls have been accepted annually for the two-year course in dental hygiene, but because the dental hygienist is being utilized more by the dental profession, demands for more graduates have pressed in upon us. Consequently, the laboratory was rearranged to accommodate 10 more students and the room was adapted for both lecture and laboratory instruction. The classes are filled with exceptionally well-qualified young women.

About 30 girls can be accommodated in the dental assisting course with present facilities. There is every indication that the course will be in demand by an ample supply of candidates.

There has been a decrease in the number of students pursuing graduate study in dentistry largely due to fewer students being eligible for veteran benefits and to loss of support to teaching assistants from the dental budget. However, the purpose of the graduate program is not so much to produce large numbers of trained persons for specialty practice as to provide well-trained teachers and research workers. During the last five years, 26 persons have received the M.S.D. at Minnesota, 16 of whom are engaged in full or part-time teaching and research. Of these well-trained persons 5 are serving full-time on our faculty and 2 are part-time.

These persons have enriched the undergraduate program, particularly in the clinical areas where the application of basic sciences is so urgently needed. The graduate program as a whole, with its research, has been an important

stimulant for the School and has provided much new material for the undergraduate program and the continuation study program. Many research papers have been presented at various meetings, many having evolved from the graduate program. Dr. Trendly Dean, secretary of the Council on Dental Research of the American Dental Association, reported at the last teachers association meeting (March 1954) that half the papers read at the last three meetings (1951-53) of the International Association for Dental Research had come from only 6 of the 43 dental schools. Minnesota was named among the 6. At the 1954 meeting, 13 of our papers were read; this was the same number presented the three previous years. What has happened to the research program in the School is not new or startling—people who wanted to do research were accommodated and facilities and encouragement were provided. As the biennium ends, most of the fifth floor of Owre Hall is being reassigned to dentistry after a loan to medicine during the construction of the Mayo Memorial. These facilities should prove to be a real stimulant to the research and graduate program.

**Significant Public Service**—The faculty is relatively small and is kept busy with the work of the School. Most of its teachers are assigned to teaching duties in classrooms, clinics, and laboratories for the full time of their appointments. This means that some full-time teachers are assigned all day every day. The part-time teachers, to whom we should pay a tremendous tribute, carry half the teaching load. Almost all of them are assigned full time to clinic or laboratory for their respective appointments.

Many, however, have carried heavy outside loads, particularly in the service of their profession and some in public agencies. An indication of the extent of this service will be found in an earlier section on Honors and Distinctions.

**Continuation Study**—The School has continued to respond to a steady demand for continuation study courses. At the beginning of the biennium, dentistry stood fourth from the top among 16 areas in the University in number of courses offered since the Center opened. Dentistry at that time offered 138 courses. At the end of the biennium dentistry had 178 courses and stood in second place. A longer range look at dentistry's position in this field shows it at the bottom of the list in 1945.

The success of the School's program in continuation study courses can be attributed to two main causes: a real need in dentistry for continuing educational programs and the quality of the courses in terms of practical application and usefulness.

**Minnesota Provides Dean**—During the biennium an important deanship was provided by this faculty to the State University of Iowa. Dr. William J. Simon, professor of dentistry and chairman of the Division of Operative Dentistry was chosen for this important post. This was a real loss as Dr. Simon was an inspiring teacher and leader, but we are certain he will be as capable an administrator. Dr. Mark O. Pattridge was appointed chairman to succeed him.

**Visual Aids**—The School has developed and is utilizing to full advantage an excellent visual aids program. In addition, its facilities keep alive for use at a moment's notice rare clinical material. A photographic library of these cases makes possible careful planning of desirable teaching material for all students and not just those who happen to be present when an unusual situation arises.

Operative areas are small and only a few persons can effectively view an operation when it is being demonstrated. Many types of operations have been demonstrated in the past to groups of approximately 10 students at a time. The demonstration would use up the better part of three hours whereas a carefully edited and planned film can show such an operation in 20 or 30 minutes and the whole class can see it with a better view of the whole procedure. In the past our clinic rooms usually were occupied with students and demonstrators, but these students are now busy doing work for patients since the demonstration has been more adequately observed using motion pictures during the regular lecture hour.

The slide library now has an impressive collection of approximately 15,000 active slides, centrally stored, systematically filed, numbered and described on a card index. They are available to all on the faculty who wish to use them and are arranged in such a way as to make them easily viewed.

The library also has 40 films varying in length from 15 to 50 minutes' running time and most of them have magnetic sound with the demonstrator's own voice recorded. Of the 29 films scheduled to be shown at the next annual meeting of the American Dental Association, 5 were selected from films produced in this School during the second year of this biennium.

**Public Service**—During this biennium there has been a significant increase in the service to the public in the matter of actual dental care at the School. The new clinics completed at the beginning of the two-year period added almost 20 per cent to the available clinic space. This has helped to reduce considerably the congestion in the main clinic, but even now there are certain days when there are more students and patients seeking chairs than are available. Careful scheduling of both students and patients has helped to avoid embarrassing situations, but where so many people are involved, it is not possible to make accurate predictions on exactly how many patients will keep appointments. The rugged Minnesota weather adds an unfavorable factor to our prediction formulas.

The increase in space corresponds well to the increase in new patients entered at the clinic. There was an increase of 15.5 per cent in new patients this biennium over the previous two years and an increase of 16 per cent in the services rendered. There are so many urgent jobs to be done in the School: serving people, teaching students, doing research, conducting post-graduate courses, counseling graduate students, to mention a few, that we have not taken time to count the total number of appointments made by patients at the School, but our conservative estimate would be 1,500 per typical school week. This would mean that only one patient used one of our 150 chairs each half day Monday through Friday whereas actually two patients are scheduled each half day for each of the 16 chairs in the Children's Clinic. Our senior students more often see two patients in a half day than one, and a long line of patients will use each chair in oral diagnosis, x-ray, and oral surgery. This makes Owre Hall a busy place, and the estimate conservative.

All this activity resulting in clinical experience for the undergraduate is both desirable and essential. Minnesota-trained dentists have long held an enviable reputation for their skills and abilities. Such a reputation is hard to gain and this School accepts the responsibility not only of maintaining this reputation but improving it. The increased experience gained by our students has been accomplished by more careful scheduling during assigned clinic time but certainly not by sacrificing basic background teaching which has been emphasized more than ever. Indeed this School appreciates the high standard of the courses given dental students by the basic science departments in the College of Medical Sciences. That our students are well prepared in these areas is born out by the fact that not one has failed the National Boards during the past five years. Most of the students have availed themselves of this board because over 30 states, including Minnesota, recognize it and therefore only the practical aspects of state boards must be taken when seeking license to practice in these states.

If the emphasis in our teaching and curriculum planning could be said to have a direction, it would be fair to say that we are attempting to maintain our high standards in moral and ethical responsibilities along with technical skills. We are continuing to emphasize preventive methods as related to dental disease and placing new emphasis on the treatment of the supporting tissues of the teeth. Unfortunately there is no good study to show that dental disease is on the decrease in spite of our more complete knowledge of its etiological factors; but quite to the contrary, there is good evidence that it is on the increase. With more people losing teeth at a younger age, periodontal disease seeming to occur earlier, and people in general growing older in spite of these dental handicaps, it does appear that restorative dentistry is going to maintain its pre-eminent position in the practice of dentistry. It also serves to emphasize that dentistry faces a grave responsibility in stemming the tide of increasing dental disease. This, of course, can be done as scientists are pre-

pared and are given time, facilities, and financial support to attack these problems. There is no satisfactory substitute for natural healthy teeth and supporting tissues, and to obtain this condition for all must continue to be our goal.—WILLIAM H. CRAWFORD, dean.

## LAW SCHOOL

**Enrollment**—The decline in enrollment in the Law School, indicated in the previous report, appears to have reached its end. The enrollment for the fall of 1952 was 358, and for 1953 it was 404. The decline which occurred was accompanied with a considerable shift of students to the part-time law schools in the state. The respective enrollments for the past six years were as follows:

	University of Minnesota Law School	St. Paul College of Law	Minneapolis- Minnesota College of Law
1948 .....	797	214	133
1949 .....	640	235	179
1950 .....	482	219	207
1951 .....	403	193	220
1952 .....	358	170	195
1953 .....	404	152	180

**Faculty**—Professor Joseph Rarick resigned during the biennium to join the faculty at the University of Oklahoma Law School. He was succeeded by Professor Charles Meyers who, after one year, left to join the faculty at Columbia University Law School. Professor Ronan Degan served for one year as visiting assistant professor after which he took up graduate work at Columbia University Law School. Professor John R. Ellingston was added to the staff for a special program described later in this report. The opportunities in private practice and in other schools have made it increasingly difficult to obtain and retain able men for teaching positions.

The scholarly productivity of the faculty has continued at a high level. Professor Edward S. Bade's *Cases on Property* and Professor Charles D. Wright's *Minnesota Practice* were published during the biennium. A number of other major works are in process of preparation and the contributions of the faculty continued to appear in leading legal and professional journals. The faculty has continued to render important public service through their participation in legal institutes and bar association activities and through other media.

**Library**—The Law School Library, an indispensable tool of instruction and research, passed the 200,000 mark in its total collection of legal materials. The collection continues to be one of the outstanding law school libraries in the country.

The major event for the Law School during the biennium was the legislative appropriation in 1953 of \$600,000 for an addition to the building. This will relieve the present greatly overcrowded condition of the Library.

In contemplation of the addition, an arrangement has been made between the Law School and the State Law Library under which the Law School Library will function as the state research library and the State Law Library will emphasize current working legal materials. Legal materials not needed for current working purposes will be given by the State Library to the Law School to the extent that the latter does not already have them. There they will be available for use by judges and lawyers and members of the public in this state. The Law School Library will be open to general use. Loans of books to judges and lawyers will be made in appropriate cases. This arrangement will avoid unnecessary duplication of legal materials and result in a saving to the state and better law library services.

**Delinquency Control**—A further major development was the creation of the Training Project in Delinquency Control which was inaugurated in the spring of 1954. This is an interdepartmental program. In part it consists of an undergraduate training sequence under the direction of the Sociology Department. In-service training for those already engaged in the field will also

be given and the services of the various departments of the University will be utilized for this purpose. The Law School's contribution is to make the course in Criminal Law available to those preparing for careers in this field and in setting up a joint seminar in the Law School open to both law students and graduate students from other departments concerned with this area. Professor John R. Ellingston joined the staff of the Law School to assist in the development of the program in its various aspects. The program is presently financed from funds received from private sources.—MAYNARD E. PIRSIG, dean.

### COLLEGE OF PHARMACY

**Undergraduate Enrollment**—The following tabulation shows the number of undergraduate students registered in the College of Pharmacy during the summer, fall, winter, and spring quarters of the two biennial years:

Year	Summer	Fall	Winter	Spring
1952-53	50-30	274	266	245
1953-54	20-20	244	229	217

**Graduate Enrollment**—Graduate students with majors in pharmaceutical chemistry or pharmacognosy were as follows:

	Pharm. Chem.	Pharmacog.
1952-53	18	1
1953-54	8	1

**Graduates**—The following is a tabulation of the undergraduate and graduate degrees awarded during the biennium:

	B.S. in Pharm.	M.S.	Ph.D.
1952-53	43	0	4
1953-54	71	0	1

**Curriculum**—No major changes were made in the professional part of the curriculum during the biennium.

**Faculty**—There were no changes in the faculty during the biennium.

**Scholarships and Fellowships**—Nine Samuel W. Melendy Memorial Scholarships of \$200 each were awarded in each of the two biennial years. One student each year received a scholarship of \$225 from the Minnesota State Pharmaceutical Association. One graduate student received a Samuel W. Melendy Memorial Fellowship in 1952-53. Fellowships were awarded to five students each year by the American Foundation for Pharmaceutical Education.

**Pharmacy ROTC**—During the biennium 28 students who received the B.S. in pharmacy degree were commissioned as second lieutenants in the Medical Service Corps Reserve. Major William Luehrs, Medical Service Corps, was the assistant professor of military science and tactics during the biennium.

Following are the enrollment data for Pharmacy ROTC:

Course	1952-53	1953-54
I (basic)	41	30
II (basic)	.....	20
III (advanced)	41	24
IV (advanced)	.....	32

**Library**—Approximately 232 books have been added by purchase or gift during the biennium. As of June 30, 1954, the total number of books and periodicals in the Pharmacy Departmental Library was approximately 6,648.

**Continuation Study**—The continuation course for licensed pharmacists was held in the Center for Continuation Study on April 20-22, 1953. Thirty-three licensed pharmacists were present. The number of licensed pharmacists taking advantage of this offering did not seem to justify a continuation of the course in 1954. The matter was referred to the faculty which voted not to offer the continuation course unless 75 pharmacists in Minnesota had registered for the 1954 course by December 15, 1953. The faculty's position was discussed at

length at a joint meeting with the Educational Committee of the Minnesota State Pharmaceutical Association early in September and it was agreed that unless the previously designated number of registrants had enrolled, the course would not be given. The previously designated minimum enrollment (75) in the continuation course did not materialize and, therefore, the course in pharmacy was discontinued for 1954. The State Pharmaceutical Association has promised active support to the next continuation course and the Minnesota State Board of Pharmacy will lend its moral support for 1955.

**State Board Examinations and Placements**—The Minnesota State Board of Pharmacy conducted four examinations in the College of Pharmacy during the biennium. A total of 121 graduates of Minnesota were licensed to practice their profession.

As near as can be determined, approximately 80 per cent of the students graduating with the B.S. in pharmacy degree are practicing their profession in retail pharmacies. The remainder are employed as hospital pharmacists, representatives of pharmaceutical concerns, or are continuing their studies at the graduate level.—CHARLES H. ROGERS, *dean*.

### COLLEGE OF EDUCATION

During the past two years the College of Education has had a strong steady increase in annual enrollment of approximately 8 per cent. Almost 1,000 students go each year from our campus into the schools—elementary, secondary, and higher. Each year almost 6,000 present and prospective teachers are students or participate in conferences and workshops at the University of Minnesota. In addition to the regularly enrolled students on the campus, the College reaches approximately 1,000 teachers annually through the General Extension Division. During the past seven years the College has offered a total of 234 classes in the state. This is an annual average of 33 classes. During these seven years a total of 135 instructors taught a total of 6,355 in-service teachers. The College considers it of great importance to reach a high percentage of the school people of the state through the various subject matter conferences, short courses such as Schoolmen's Week, workshops, seminars, and individual consultations. During a given year short courses, workshops, and conferences are held for superintendents, secondary school principals, elementary school principals, supervisors, and directors of instruction. Conferences are held in the areas of English, reading, language arts, mathematics, science, home economics, industrial education, agricultural education, distributive education, art, music, physical education for both men and women, audio-visual aids, education of exceptional children, and other similar fields.

Studies during the past year reveal that approximately 60 per cent of the 447 superintendents of the state have received the Master's degree or its equivalent from the University of Minnesota in educational administration. Seventy-five per cent of the senior high school principals with Master's degrees received them from the University. One hundred twenty-seven industrial education teachers of Minnesota have their Master's degrees from the University of Minnesota.

**Bureau of Recommendations**—The principal accomplishment of the Bureau during the past biennium has been in its increased efficiency and speed in performing its services in the face of steadily increasing demands. During the past two years, the number of specified vacancies reported to the Bureau has increased over 40 per cent, reaching a total of 12,000 per year. In addition, the number of block requests (e.g. "—We will need sixty elementary teachers—") has increased tremendously. Despite this increase in volume and despite a smaller staff, the Bureau has been able to prepare and submit credentials with much less delay than in previous years. Two years ago, staff members found it necessary to work overtime every evening to reduce the time lag between request and submission. At present, requests are answered the day they are received. Two improvements account for this: (1) the installation of an automatic copying machine, and (2) the development of new registration forms. Another measure of the Bureau's success is client acceptance. For each of the past several years the number of alumni renewing their registration has been

increasing, as has the number of non-education graduate students seeking college positions.

The teacher shortage will continue for many years. The birth rate is continuing to increase and the end is not in sight. We cannot begin to meet the needs of school officials who call upon us. The shortage of elementary teachers is more serious than at the end of the previous biennium. During the past year the Bureau reported a larger number of persons placed in new elementary positions than at any time in its history. The greatest increase in calls during the past two years, percentagewise, was at the secondary level, with college calls also increasing significantly.

**The Bureau of Field Studies and Surveys**—The Bureau was organized in its present form in 1948 to serve the public schools of this area in the improvement of their school plant facilities and in increasing the effectiveness of their instructional programs. Since 1948, 48 major school surveys have been completed, 25 of these during the past biennium. At the present time surveys are in process in 15 Minnesota communities. In the communities in which surveys have been completed, more than 33 million dollars worth of school buildings have been constructed or are in the process of construction.

During the first year of the biennium, the Minnesota School Facilities Survey was completed. Two major publications resulted: *A Study of Selected Aspects of Minnesota Public Secondary Schools* and *An Analysis of Projected Public School Building Needs of Minnesota*. Because of the high quality of the Minnesota Survey, a member of the Bureau staff was selected by the United States Office of Education to prepare the Federal summarization of all state reports.

**The Bureau of Educational Research**—During the biennium, the Bureau has undertaken 23 different research projects. Four of these are co-sponsored by organizations of Minnesota schoolmen: the Minnesota Association of School Administrators, the Minnesota Society for the Study of Education, the Western Division of the Minnesota Education Association, and the Lake Area Counselors Association. Three of the projects deal with problems of pre-service education of teachers; 6 are concerned with professional in-service personnel problems of school systems; and 7 deal directly with instructional problems of the elementary and secondary schools. Two have to do with research in measurement methodology. All are conducted cooperatively with members of the faculty of the College. In this way the Bureau serves the College by facilitating faculty research activity, enabling it to maintain its national leadership in this area.

**Psycho-Educational Clinic**—Through this Clinic the University attempts to meet the obligation of the state to make education accessible to all its children. This obligation becomes most difficult and challenging in the case of those exceptional children who require special services—the mentally gifted, the mentally retarded, those with severe hearing losses or visual handicaps, those whose speech is impaired, and those with orthopedic handicaps. In the Psycho-Educational Clinic, research and teacher training are organized around a diagnostic and tutorial service program. Approximately 150 children come to the clinic each year for diagnosis. About 75 are enrolled each year for a period of remedial instruction. The clinic also acts as a coordinating center for curricula in special education. Three programs of special preparation are now available. The speech department offers a fourth sequence in the area of speech correction.

**The University Laboratory Schools**—During the past biennium there have been great improvements in the physical accommodations provided for our laboratory schools. University High School has moved into Peik Hall which, from a functional standpoint, is one of the best designed schools in the nation. The library, laboratories, classrooms, and offices are of the most modern design. In the previous forty years of its existence, this school has been scattered in as many as nine different buildings under highly unsatisfactory conditions. At present, it still lacks music facilities, an auditorium, and a cafeteria.

The housing of the University Elementary School has also improved greatly. During the first year of the biennium, it was housed in Pattee Hall,

Shevlin Hall, and Burton Hall, but during the past year all six grades have been located in Pattee Hall with office space for teachers, a small but serviceable library, and a conveniently located and attractive administrative office. Space will become available next year for a combined lunchroom, playroom, and auditorium in the same building. The physical condition of Pattee Hall leaves much to be desired, but the classrooms are reasonably comfortable and attractive, the equipment is superior. In the next ten years it is highly desirable that a new building be constructed to house the Elementary School, the Institute of Child Welfare, and the Psycho-Educational Clinic—with facilities for music instruction. An auditorium and cafeteria should also be included to service all the laboratory schools.

The establishment of definite school policies has been a major concern in the laboratory schools during the past biennium. This has been particularly important in matters of staff, functions of the schools, and the admission of new students. In the past year a committee was appointed to deal with long-range matters of school policy and functions of the schools. The quality of the program is attested by the fact that an elementary school with 150 enrolled has a waiting list of 111 children, while the high school with an enrollment of 420, has a waiting list of 129.

The laboratory schools make an impact on educational programs in Minnesota schools in many ways. They provide a laboratory for the practical application of principles and practices of instruction and for the experimental tryout of new procedures. They render a service to the experienced teachers and administrators of Minnesota schools. Each year the laboratory schools receive an increasingly greater number of requests for visits by in-service teachers, supervisors, and administrative officers throughout the state. Through one-way vision screens, glass observation booths, and closed-circuit television, it is possible for them to see a sound modern school program in operation. Our teachers in training work closely with the experienced teachers of the laboratory schools and receive indispensable instruction in the teaching art. These schools avoid extreme teaching procedures which would be impractical in the public schools. Rather they use the best old and new teaching procedures and, in general, conduct an educational program which might well be duplicated in the public schools.

Because of rapid advance in the salaries of public school teachers, it is becoming increasingly difficult to staff these schools at the current salaries paid instructors. Superior teachers seeking advanced degrees can secure teaching positions in the Twin Cities and suburbs with salaries at least \$1,000 greater than the laboratory schools can pay. The problem will be extremely serious during the next biennium.

**The Student Personnel Office**—During the past two years, our counselors have had approximately 9,600 student interviews. Students see these counselors: (1) for help in deciding whether to enter teaching as a profession; (2) for assistance in planning programs while they are still in the College of Science, Literature, and the Arts as pre-education students; (3) to confer about applications for transfer; (4) for interviews prior to the screening out of students who should not continue in teacher education; (5) for conferences regarding academic difficulties; (6) to consider individual adjustments of curricular requirements; (7) for counseling, often on referral from a major adviser. Counselors also prepare reports for advisers, interpret test scores and personnel data for advisers and supervisors, participate in case conferences, review files to select students to be recommended for awards or recognition, write numerous recommendations for loans and scholarships, and correspond with prospective students.

**The Office of Laboratory Experiences**—During the biennium this Office provided student teaching experiences for approximately 1,300 different students. These student teachers represent 22 different major fields in the several departments of the College. In addition to student teaching done at University High School and the University Elementary School which provide for 120 student teachers each quarter, student teaching is done in over 130 different public schools of the Twin Cities, suburbs, and throughout the state. An attempt is made to give each student experience both in the laboratory

schools and in a typical public school situation. Demonstration teachers located in the Tuttle Elementary School of Minneapolis give approximately 120 teaching demonstrations for University classes each year. Progress is being made in the direction of having more student teaching in public schools and in lengthening the student teaching period to give the students longer contact with classes and the total public school program. Student teachers in the public schools are visited by a university supervisor approximately four times each quarter.

**Vocational Education**—The last biennium has been one of rapid improvement in our vocational education offerings. The Departments of Home Economics, Industrial Education, Agricultural Education, and Business and Distributive Education have all either moved into new quarters or have enlarged their facilities. The Home Economics Building has provided excellent laboratories and equipment. The facilities and equipment of Business and Distributive Education and Trade and Industrial Education are now only approaching a respectable minimum despite significant additions during this biennium.

The enrollment in all vocational education departments has increased both at the graduate and undergraduate levels. Significant research projects are under way in all departments. Service courses offered to the students of the various colleges of the University, to industry and agriculture throughout the state, and to the public schools have increased in all departments.

**General Education**—This Department consists of the divisions of elementary education, secondary education, higher education, educational psychology, curriculum and instruction, history and philosophy of education, and rural education. The faculty of this Department carried the major instructional load of the College both at the undergraduate and graduate level. This Department has always been understaffed and recent increases in enrollment have aggravated the situation. In the Division of Elementary Education, 6 staff members carry the great burden of preparing over 700 students to become elementary teachers. It is not unusual for one of these staff members to be advising 100 undergraduate students, from 50 to 100 Master's candidates, and from 5 to 20 Ph.D. candidates, in addition to teaching classes, doing research, and carrying on state services. We urgently need 2 additional staff members in elementary education, 2 in educational psychology, 1 in secondary education, and at least 1 in administration.

The Department assumed its present form in the early days of the College when one staff member could be made responsible for the preparation of school superintendents and another for secondary school principals. Today the size of the College necessitates adjustments. Committees in educational administration, educational psychology, elementary education, and secondary education, have been at work during the past year studying the needs of the various divisions with a view to recommending changes—possibly setting up departments of educational administration and perhaps educational psychology.

In the Division of Higher Education, one of the most stimulating projects has been the establishment of the Graduate School program for interns in college teaching with funds from the Fund for the Advancement of Education. The program has been directed by two members of the College faculty. Twelve post-doctoral interns are appointed each year to work with twelve outstanding instructors of the University with a view to developing greater teaching competence. The project is being continued for the year 1954-55.

Another interesting project has been undertaken by the Rural Education Division of the College. Since the major problem of education in all countries of the world seems to be found in rural areas, the cooperative educational programs developed by the United States Government in less favored nations places major emphasis on rural education. To meet the demand for training rural education leaders from South and Central America, an International Center for Rural Education under a United States Government contract has been established on the St. Paul Campus. In March, 1954, 23 leaders from Bolivia, Ecuador, Nicaragua, and Honduras began a special instructional program. The FOA office in Washington is eager to have the program continued indefinitely.

Two major educational journals, one in the area of educational radio-television and the other in counseling, are being edited by members of the General Education Department.

**Retirements**—Five major staff members reached the age of retirement during the past biennium. Jean H. Alexander, history of education; Clara B. Arny, home economics; Charles W. Boardman, secondary school administration; Homer J. Smith, head, Department of Industrial Education; and Marvin J. Van Wagenen, educational psychology. In each case the position has been filled by a staff member who gives high promise of leadership qualities.—WALTER W. COOK, *dean*.

### SCHOOL OF BUSINESS ADMINISTRATION

The School of Business Administration has completed a not spectacular, but productive, biennium. The faculty suffered serious losses but the process of rebuilding is proceeding with encouraging results. The climate of research has definitely improved and the results have been widespread throughout the faculty. The requests for special services continue to exceed our capacities to satisfy, and remain as a basic challenge to our faculty, as well as a token of confidence from the people of the state.

**Research**—The School was much encouraged by the doubling of the grant for business and economic research by the 1953 Legislature, over the original grant made in 1951. The grant has been used almost entirely for publications which have received encouraging acceptance, particularly within the state. The subjects included in the ten issues of *Business News Notes*, published in the biennium, have covered a broad range of the economic and business problems of Minnesota and its communities. In addition, the grant has made possible the revival of our series of *Studies in Economics and Business*, which are special monographs on the economic activities of the state. The grant still falls far short of our ambitions in establishing a really adequate research unit, but we are encouraged by these first appropriations.

The School was able to assist the 1953 Legislature in the preparation of an exhaustive report for the Interim Committee on Aviation Research. This is an indication of the trend in the Legislature to call on the School of Business Administration for professional assistance within its special field of competence, and is one of the bases for our repeated request for an adequate Bureau of Business and Economic Research. The research production of the faculty has markedly increased during the past biennium. There has been mutual encouragement, particularly among the younger members, in research activities which appear on a wide variety of topics and are beginning to re-establish the national reputation in economic and business research of the University, which the School held prior to the war.

**Students and Faculty**—A new low point in our postwar enrollment figures seems to have been reached, and preparations are now being made for the upturn in registration for business. Graduates of the School are held in high esteem by national companies which continue to visit the campus and seek more graduates than can satisfactorily be provided. The placement service enjoys an enviable reputation and its assistance in the placement of returning veterans among the graduates is particularly appreciated.

The faculty lost four members with long service records at the University. Two members, Professor Harry J. Ostlund and Mrs. Nina L. Youngs, who date almost from the beginning of the School, were lost by retirement. Two members, Professors Helen G. Canoyer and Arthur R. Upgren, both graduates of the University, were called to administrative posts in other universities, Cornell and Dartmouth. Two of our younger members, Professors A. G. Papandreou and Lloyd Ulman, received Social Science Research Council Three-year Faculty Fellowships. The School of Business Administration is honored by having two of these relatively rare fellowships awarded to members of its faculty in one biennium.

In an unusual occasion last spring, Alpha Kappa Psi, professional business fraternity, presented awards for long service, exceeding 25 years, to 10 mem-

bers of the faculty. The attendance of the alumni from all classes made this a memorable event, attesting to the continued loyalty and interest of the alumni of the School.

Members of the faculty have continued to give generously of their services to the profession and to agencies of the government. They have served as consultants or research workers for political units, ranging from the City of Minneapolis to the United Nations. Special service has been given to professional agencies such as the National Association of Cost Accountants and the American Association of Collegiate Schools of Business.

A growing and encouraging trend among the faculty has been the acceptance of invitations to special summer faculty fellowships for faculty-industry seminars conducted by private companies and trade organizations. Through these experiences, varying from one week to a month, the faculty members have had an unusual opportunity to see business in operation, and thereby enrich their background for more effective teaching and research. At the same time the faculty member can frequently offer valuable suggestions to his host.

**Special Services**—The School continues to work with the Duluth Branch in staging the intensive summer course in industrial administration for the Navy Postgraduate School at the Duluth Branch. The Navy has expressed its satisfaction with the program which was developed for their needs and apparently plans to continue this relationship.

The School has received several delegations of foreign visitors, particularly from Holland, Turkey, and Norway. In some of these cases it has been possible to arrange special meetings with business leaders of the Twin Cities, which have demonstrated to the visitors the close relationships which exist between business and education in this country.

The number of intensive short courses which are sponsored with the Extension Division in the several specialties in business are being gradually increased. The chief limitation is staff time which will make possible the preparation of the kind of program with which the School wishes to be identified.

Two special classes of the Business Executives' Research Committee have been held—a somewhat unique experiment in cooperative research as well as executive development. From 25 to 30 selected younger executives from Minnesota firms have met at least semi-monthly and worked out projects of timely economic concern. In 1952 the topic was "Problems of Capital Formation"; in 1953, "Factors in the Location of Industry." So far, these projects have been supported from grants from the Committee for Economic Development.

**Instruction**—The pre-business curriculum was subjected to an intensive scrutiny and certain modifications have been effected. Of particular interest was a recommendation for an introductory course in business organization, which will help the entering freshman to confirm and perhaps intensify his choice of a career in business.

Opportunities for internships for special assignments in business organizations, both local and national, have been cultivated rather intensively during the past biennium. An increasing number of business firms have taken sufficient interest in education for business to make special provisions for juniors and seniors in the School of Business Administration to obtain supervised experience for one academic quarter. This is in line with the long-range hopes of the School, to develop these opportunities as part of the educational program in as many of the special fields as possible.

**Plans and Problems**—In anticipation of the next enrollment bulge the School of Business Administration established a Long-range Planning Committee in 1953, to give intensive study to the direction which its program should take and the resources which will be necessary to fulfill the indicated needs. A "blueprint" of unusual value in our plans for faculty recruitment and curriculum development is anticipated. The research activities have been hampered by faculty overloads and the present limitations of Vincent Hall. These are being fitted into the findings of the Long-range Committee.

Serious consideration is being given to some form of executive development program to meet the needs of the Upper Midwest. These programs have become increasingly common among schools of business administration, but

they involve serious problems of selection, facilities, and faculty, which involve more staff time for planning than has been available in the past. Nevertheless, the urgency of this need is felt and it is hoped that such a program can be established in the near future.

The time seems appropriate for reviving the alumni organization in the School of Business Administration. There are now more than 7,000 alumni and recent events have indicated a gratifying amount of loyalty and interest which it is believed can be organized to the mutual advantage of the School and the University.—RICHARD L. KOZELKA, *dean*.

## GRADUATE SCHOOL

**Growth and Change**—Though graduate work at the University of Minnesota began very early, with the first Master's degree awarded in 1880 and the first Ph.D. in 1888, it was not until 1905 that the Graduate School was formally organized as a separate unit. The biennium under review, therefore, is on the edge of the fiftieth anniversary of the establishment of the Graduate School. In a large view of its history, one sees vast increases in the numbers of students and degrees, proliferation of major areas, expansion of the faculty, and widening of research enterprises. But through the many years of growth and change, the School has maintained careful student selection and high standards of training and work, coupled with tremendous improvement in facilities for both instruction and research.

**Enrollment**—Graduate students in residence, including those in the Mayo Foundation, the summer terms, and the academic year, numbered 5,254 in 1952-53 and 5,264 in 1953-54, compared with an average annual enrollment of 5,697 in the preceding biennium. The downward tendency reported two years ago has continued, with some slight indication of an upturn in 1953-54. The enrollment in the regular academic year, exclusive of the Mayo Fellows, was 3,104 in 1952-53 and 3,145 in 1953-54; the summer enrollment was 2,428 in 1952 and 2,282 in 1953. (See Table I for further details.) The graduate summer enrollment in 1953 constituted approximately 28.5 per cent of the total summer school enrollment.

The ratio of men to women in graduate study was virtually five to one in 1952-53, with a slight upward trend in the proportion of women in 1953-54, possibly occasioned by changes in the employment situation.

TABLE I. GRADUATE SCHOOL STUDENTS IN RESIDENCE

Classification	1952-53			1953-54		
	Men	Women	Total	Men	Women	Total
Fall, winter, and/or spring .....	1,759	373	2,132	1,811	456	2,267
Summer Session only .....	1,127	329	1,456	1,092	312	1,404
Both fall, winter, spring and Summer Session .....	824	148	972	728	150	878
Mayo Foundation Fellows .....	667	27	694	684	31	715
Totals .....	4,377	877	5,254	4,315	949	5,264
Totals, academic year (exclusive of Mayo Fellows) .....	2,583	521	3,104	2,539	606	3,145
Total individuals in two summer terms, less duplicates (exclusive of Mayo Fellows) .....	1,951	477	2,428	1,820	462	2,282

**Foreign Students**—The international standing of the Graduate School was again reflected in considerable increases in the number of foreign students over the previous biennium. In 1952-53 there were 572 and the following year 592, contrasted with 467 and 526 for the previous biennium. As usual, the largest contingent was the Canadian, which brought 164 and 170 students to the Graduate School in the two biennial years. Foreign students have come from more than 60 countries. As in the past the Graduate School, in which most of the foreign students in the University are enrolled, has had excellent coopera-

tion from the Office of the Foreign Student Adviser. This office, under Forrest G. Moore, has performed countless services to ease the difficulties faced by foreign students in an unfamiliar university and community.

While performing the functions of this office, Mr. Moore has completed a study of the factors affecting academic success of foreign students in American universities, drawing much of his basic material from the Minnesota record. The linguistic problems of students whose native language is not English are many and perplexing, and a plan has now been worked out to test the English of all such students entering the Graduate School in the fall quarter, 1954, and to establish a special experimental class thereafter, with emphasis upon reading, writing, listening, and speaking. It is hoped that thus an adequate testing program can be worked out in conjunction with a suitable program of instruction.

Let me stress again the need for a certificate of attendance for nondegree foreign students who have completed one academic year of residence and successful study. This would obviate some of the problems attendant upon overemphasis on degrees as such.

TABLE II. FOREIGN STUDENTS REGISTERED IN THE GRADUATE SCHOOL

Country	1952-53	1953-54	Country	1952-53	1953-54
Argentina	2	3	Italy	3	5
Australia	7	9	Jamaica	1	2
Austria	7	6	Japan	24	27
Belgium	9	2	Korea	3	8
Bolivia		2	Latvia	1	
Bermuda	1		Lebanon	4	4
Brazil	7	5	Malaya	1	
Burma	4	5	Malta	1	
Canada	164	170	Mauritius	1	
Ceylon	1	1	Mexico	11	11
Chile	8	5	Netherlands	6	4
China	48	38	New Zealand		4
Colombia	6	5	Nicaragua	1	1
Costa Rica	2	1	Nigeria	6	4
Cuba	4	2	Norway	22	23
Cyprus	1	1	Pakistan	7	9
Denmark	3	4	Panama	1	2
Ecuador	2	1	Peru	3	2
Egypt	19	18	Philippines	5	11
England	20	15	Poland	3	1
Estonia	1		Portugal	2	1
Ethiopia		1	Scotland	9	15
Finland	4	3	South Africa	6	6
France	14	10	Spain		1
Germany	21	30	Sweden	3	2
Greece	10	11	Switzerland	4	7
Guatemala	2	3	Syria	1	1
Hungary	2	2	Thailand	7	2
Iceland	1		Turkey	8	9
India	32	47	Wales		2
Indochina	2	1	Yugoslavia		1
Indonesia	2	1			
Iran	5	7	Totals	572	592
Iraq	5	7			
Ireland	7	7	Total countries represented	65	60
Israel	5	4			

**Degrees**—Graduate degrees conferred by the University during the biennium total 1,779. The trend toward more Ph.D. degrees and fewer Master's degrees, emphasized two years ago, has continued. During this biennium, 457 Doctor's degrees were awarded, as compared with 378 the previous biennium, which in turn was the highest peak since the establishment of the Graduate School. Meanwhile, the number of Master's degrees declined from 1,516 to 1,320.

**Special Programs**—A persistent problem in the training of school superintendents who need to go beyond the Master's but not to the Ph.D. level has been the absence of a program that would meet their professional needs, carry them about half way between the two degrees, and lead to appropriate recognition. To meet this problem the Graduate School in 1953 authorized a pro-

gram leading to the award of the certificate "Specialist in Education." Closely related to the superintendent's problems of educational leadership in school and community, this program requires two years of study including the master of arts degree in educational administration and a second year devoted to workshops on improvement of instruction, administrative problems, educational psychology and philosophy, and other subjects. The plan, devised by Professor Mervin G. Neale, should prove significant for the future administration of our public schools.

In 1953 the Graduate School authorized a major in mechanics and materials for the Ph.D. degree, and in 1954 a Ph.D. program in the field of fluid mechanics. Emphasizing its broad aspects rather than one of the more traditional areas of science or engineering, the latter program will include theoretical and experimental studies and cover such diverse areas as hydraulics, compressible and turbulent flow, energy and mass transfer, combustion, meteorology, acoustics, and astrophysics. The merging of metallography and metallurgy into the Department of Metallurgical Engineering has resulted in the consolidation of graduate work for both the Master's and the Doctor's degree under the latter departmental heading. An experimental program leading to the degree of master of arts with a major in industrial relations was authorized in 1953.

**Fellowships and Scholarships**—Six Greater University Graduate Fellowships were awarded during the biennium with the usual screening of many applications. Provided by the generosity of alumni and friends through the Greater University Fund, these fellowships serve to attract and encourage top talent. That many more fellowships at a high level are needed is evidenced by the fact that applications for the Greater University Fellowships are in a proportion of approximately 20 to each award made, and the selection committee reports that the quality of applications is generally excellent. As in the previous biennium, grants through the National Science Foundation and the Fulbright Office have aided many graduate students in advancing their studies and experience. The Graduate School has continued to serve as a central office for the handling of student applications for the Fulbright Fellowships, with the associate dean as the Fulbright officer, and it has also given much aid to faculty members. During the biennium 22 graduate students and 15 faculty members received Fulbright appointments for study and teaching abroad. Students from Southeast Asia were given needed aid through the John Cowles Foundation, which has continued its generous support and has made available an additional \$4,000 for 1954-55. The 40 Foreign Student Tuition Scholarships have been administered throughout the biennium. Endowed fellowships increased in number from 108 in 1952-53 to 129 in 1953-54 and 161 for 1954-55. These figures take into account losses through the termination of grants, gains through new gifts, and occasional re-establishment of fellowships that had been temporarily discontinued. The total fellowship picture is one of improvement, but many needs still go unmet, and in a period of expanded enrollment we shall need many more graduate fellowships.

The most serious aspect of aid to graduate students is a large loss in the number of teaching and research assistantships and medical fellowships. The figure for 1952-53 was 1,420 and for 1953-54 1,550, whereas that for 1954-55 will approximate 1,320. Some colleges in the University seem to have sacrificed teaching assistantships to improve salaries at higher academic levels, despite the prospect of an upward enrollment. Such assistants will be more urgently needed in the next biennium than in the past. The policy of diverting funds from the humblest staff positions could impair teaching efficiency while at the same time it cuts down aids for top graduate students, many of whom cannot continue their studies without subsidies. While these figures do not embrace appointments made through contract research, foundation grants, and research grants, the problems posed by a reduction of more than 200 appointments in a single year are serious and will become critical if enrollments increase.

**Social Science Research Center**—Founded seven years ago, this unit has expanded its activities during the biennium. It brought out a volume entitled *Human Problems of the Garrison State*, the fifth in its series of annual public

lectures. A notable address by Professor F. Stuart Chapin on *Social Science Research: Its Expanding Horizons*, the sixth annual lecture, was published in 1953. In 1954 the Center presented a series of radio broadcasts on *Minnesota Trends*, later also published. Another of the Center's interests was expressed in a brochure on *Organizing Research in Urban History*. The annual inventory of research in the social sciences has been continued, and the Center has aided both graduate students and staff members in their search for fellowships and grants.

National recognition of the effectiveness of the Center was evidenced by a grant in 1953 of \$5,000 by the Ford Foundation to provide funds for faculty members who need to observe research in other institutions, and to bring expert consultants to the Campus. In 1953-54 the Center passed a milestone in its history, for the records showed that it has aided in securing for research in the social sciences more than a million dollars from sources external to the University. Plans are now under way for special training of men and women for research careers in the social sciences, a complement to the program under the Ford grant which made possible the appointment of three social science research men to the faculty. Other plans include continuation of the social science research inventory, a new series of public lectures on social science and freedom, and inauguration of a summer workshop for social science teachers. The success of the Center derives largely from the willing cooperation of the faculty, especially through an advisory council and an executive committee, of which Professor Robert McClure has been chairman during 1953-54. Dean Darley has continued as executive secretary.

**Scandinavian Area Program**—Since the termination of the Carnegie grant in 1952, work in this field has been carried forward with limited resources. A bibliography prepared by Professors Folke Lindberg and John I. Kolehmainen on the *Scandinavian Countries in International Affairs* was published in 1953, and in 1954 a similar bibliography on *Government, Policies, and Law in the Scandinavian Countries* was brought out, this one by Ake Sandler and Ernst Ekman. The course in Scandinavian history has been taken over by Professor Lawrence D. Steefel of the Department of History. Joint arrangements with the University of Wisconsin in Scandinavian Summer Studies have been continued.

**The Preparation of College Teachers**—The Graduate School has maintained its interest in the improvement of college teaching. A new development was a special program of college teaching internships with a grant of \$50,000 in 1953 from the Ford Fund for the Advancement of Education. Each intern selected would spend a full academic year on a stipend at the instructor's level, devoting all of his time and energy to activities and studies designed to enrich his competency in teaching. A faculty committee on policies was appointed by the Graduate School, with Professor C. Gilbert Wrenn as director of the program. The eight interns selected for the first year were high-quality Ph.D. candidates who had already passed their preliminary oral examinations. Weekly seminars were held. Each intern worked under a faculty sponsor in his own field and engaged under supervision in a variety of teaching activities. The University program is one of ten such programs initiated in institutions of the United States. Much thought was given to appraising the work done during the first year, and Professor Wrenn aided in working out a plan of evaluation for all the colleges involved. Evidence of the success of the first year was a second grant of equal amount for 1954-55, under which thirteen interns have been chosen. The impact of this program is believed to reach far beyond the students immediately concerned. With grave problems of college personnel looming in the near future, new emphasis must be placed upon college-teaching effectiveness, including both preparation of future college leaders and the work of our own staff in classroom and seminar.

**Revision of Procedures and Regulations**—After prolonged and careful study by the group committees and the Executive Committee, certain changes in rules and procedures were adopted by the Executive Committee in 1953 to simplify and strengthen Graduate School practices and to aid in maintaining the standards and integrity of graduate education in the face of enlarged enrollments. Without presenting the details of all the many revisions, it may be

noted that the size of Ph.D. examining committees has been reduced, procedures on voting majorities have been clarified, the period that must elapse between the preliminary oral examination and the award of the Ph.D. degree has been reduced from seven months to one academic quarter, Master's Plan A and Plan B have been brought under identical examining procedures, and admission to the Graduate School as well as residence in it now includes an evaluation of the individual's character and professional qualifications in addition to his scholastic promise or performance.

**The Graduate Adviser**—While certain rules and regulations may be revised in the light of modern needs, the Graduate School has tried to maintain the traditional freedom and flexibility of the adviser-student relationship. Any authorized member of the Graduate faculty is empowered to serve as adviser if a graduate student seeks him out and if he wishes to accept the attendant responsibility. Traditionally, graduate education at Minnesota has never been departmentalized. Like the graduate faculty it cuts across college and departmental lines. Graduate programs, planned by students in consultation with individual graduate faculty advisers, are under the jurisdiction, not of departments, but of graduate group committees representing wide areas in related fields of study and research. Advisers are not "assigned" by departments, but represent free choice by students in consultation with individual graduate faculty members. Advisers take into account the interests and needs of the individual student, with a minimum of formal prescription of work and, at the Ph.D. level, without fixed credit requirements. A rigid binding of doctoral work by rules evolved at earlier levels of education violates the scholarly intent and character of the Ph.D. degree, the basis of which is high individual ability and attainment.

**Language Requirements**—In previous reports attention has been given to the modification in 1949 of the traditional Ph.D. language requirements, a plan approved by the graduate faculty and now carried through a five-year experimental period. A review presented to the Executive Committee shows that for the first four years of this period 78 per cent of our Ph.D. candidates offered two foreign languages for the degree, whereas 22 per cent chose to present one foreign language and either a research technique or a collateral field. A full report on the five-year period is being prepared for the faculty. The plan has worked successfully, with an evident elevation of standards of effort and achievement.

**Summer Research Appointments**—The summer plan for the encouragement of faculty research and writing was carried forward during the biennium, with 13 awards in 1953 and 14 in 1954, thus bringing precisely to 100 the number of such summer appointments made since this project was begun in 1946. There was the usual wide range in fields and subject matter, with highly productive results in the form of completed or nearly completed research and writing.

**Single-Quarter Leaves**—Not unrelated to the summer plan is the launching of an all-University plan for single-quarter leaves of absence by staff members on salary to advance research and educational investigations that contribute to their scholarly richness and teaching effectiveness. This new plan, for which the dean served as chairman of a preliminary exploratory committee, will go into effect at the beginning of the winter quarter, 1955.

**Regional Writing**—This project for creative work interpreting past and present in the Upper Midwest is now virtually closed, with sixteen volumes published, but it may be noted that some five or six additional volumes, long delayed, will ultimately appear in print. No new fellowships have been awarded. With increasing perspective, it is evident that the project has been influential in the advance of creative work in this important region.

**Research**—The research picture, from the vantage of the Graduate School, is one of dedication by the faculty, productivity, and expanding facilities, with continued evidence of the sensitive relationship between the strength and morale of the faculty and the materials and time available for research. The

Graduate School has developed and improved techniques of committee appraisal and screening of projects which have been effective and have contributed to research coordination. No emphasis upon funds or administration alters the fact that research progress depends primarily upon the training, will, and imagination of University scholars, and here I wish to emphasize the relationship of scholarly research to graduate teaching. In surveying research, we do not ordinarily stress the directed researches of graduate students, especially candidates for the Doctor's degree, but the total picture must include the training of such students and their production of scholarly monographs. As in all research, the emphasis is upon quality, but on the quantitative side it may be noted that during the biennium 457 doctoral theses were completed as additions to the store of knowledge. Major credit for the success of the Graduate School must here go to the painstaking and time-consuming efforts of faculty advisers in the directing of hundreds of extensive student researches.

**General Research**—This fund, with \$90,000 a year, has continued its support of studies of problems in the physical, biological, educational, and social fields. Grants are made to individual faculty members and to groups of scholars working together. In 1953-54 no fewer than 69 projects were supported in such areas as political science, botany, psychology, law, plant genetics, education, journalism, child welfare, mechanical and electrical engineering, chemistry, sociology, history, and zoology. An array of publications embodies the results. Part of the fund was earmarked for a multiple sclerosis clinic—a specialized activity which in future presumably will be financed by a special appropriation.

**Medical and Cancer Research**—This fund, increased for the past biennium from \$60,000 to \$62,500 per year, is especially notable for the encouragement of medical and surgical researches in their early stages. Often studies thus initiated draw later support from sources outside the University. Testimony to its value is the vigor of research that it supports in such fields as cancer, brain tumors, human tissues, the nervous system, liver injuries, heart disease, rheumatic fever, peptic ulcers, and diabetes. Support is given to fundamental researches dealing with the human body in disease and in health.

**Nonmedical Research**—This fund, budgeted at \$28,750 a year, has significance for the faculty out of all proportion to its modest size. In the biennium, more than a hundred grants were made after appraisal of projects by the graduate group committees. This fund, too, has a wide range, and its impact is the greater because often it supports scholarly work that cannot readily find funds in the contract research market. Among many services, the fund has made more interesting for the public the programs of the Museum of Natural History; it has furnished pollen counts, of use to sufferers from hay fever; it has helped to develop new pharmaceuticals; and it has made possible progress in basic problems of the physical sciences touching oil deposits, clay composition, solar energy, and chemical compounds. On the social and human side it has given aid to archaeology and to studies of primitive peoples, of labor-management relationships, military law, the flow of public information, American culture and art forms, personality structure, and sundry tests and measuring devices for human performance and the outcomes of teaching.

**Greater University Fund**—This fund has continued to support Greater University Fellowships, to meet needs for research equipment, and to give other kinds of aid that could not be supplied through regular funds. Thus it has contributed to improvements in the University's electron microscope, aided a study of earth curves in mines and metallurgy, made possible the purchase of a universal wear tester for home economics, a monochrometer for zoology, and cardiovascular research equipment for medicine, given aid to studies of shrubs and landscaping in horticulture, supported children's aid scholarships for the Psycho-Educational Clinic, and made available grants for Dorati music studies designed to train future conductors. These projects make evident the indebtedness of the Graduate School and its faculty to the alumni and friends of the University, whose generosity has made possible notable research and educational gains.

**Minnesota Institute of Research**—This fund, with a budget of \$30,000, has emphasized the development of the industries and resources of Minnesota. Some recent illustrations of its importance are afforded by the subjects and problems investigated: the geography of Minnesota manufacturing industries, growth and survival of trees in the Red River Valley, Minnesota soils, commercial fishery resources, tamarack reproduction, concentrated and dry milk products, the effects of drainage ditches on ground-water levels and forest growth, scientific study of the Minnesota climate, studies of flax and wood, chemical products from the oxidation of peat, studies of wild rice, some work on iron ore, and a few further experiments in connection with the substantially completed research project of flax fiber from seed flax straw. A faculty committee headed by the dean of the Institute of Technology reviews and appraises projects having to do with this fund.

An important special development was the allocation by the President of considerable sums from the **Reserve Overhead Research Fund** for the support of faculty research. This fund, after searching appraisals by the General Research committee, with final action taken upon concurrence of the president and the dean, has been employed in relation to the following criteria: (1) major and nonrecurring research equipment items; (2) emergency needs resulting from the limitation or termination of various research contracts; (3) programmatic research rather than individual and isolated projects; and (4) the pioneering of researches that require somewhat larger outlays of money than could be supplied under other available funds. In its first year the fund provided many relatively small but crucial pieces of equipment in addition to the major purchase of a spectrophotometer. In the second year equipment purchases included an x-ray Geiger spectrometer. Thus far approximately 55 per cent of the total expenditures has been for major and nonrecurring research equipment needs. The fund has given much impetus to University research and in some areas will almost certainly lead to substantial new aid through contract research arrangements.

**Hormel Institute**—This agency, devoted to research and education in the agricultural sciences, had a staff of 44 at the end of the biennium, most of whom were at work in the laboratories at Austin, while others were cooperating with divisions of the University in Rochester, Minneapolis, St. Paul, and certain agricultural experiment stations. The laboratories and work space of the Institute were enlarged by the conversion of a small adjacent frame building into a suitable facility for research in organic chemistry—with special equipment for the use of radioactive material—and there was some expansion in equipment for swine studies, more especially in units for rearing disease-free pigs. The researches, which eventuated in thirty-one publications during the biennium, made notable advances.

In chemistry and biochemistry new findings were made on the structures of peroxides formed during the autoxidation of fatty acid esters. A shortening developed in the laboratories from hog fat seems superior to available commercial vegetable oil shortenings, and pilot plant studies are now under way looking to large-scale production. A new solvent for antioxidants has been discovered. Fundamental discoveries on the separation and analysis of fat and oil components by chromatographic processes have been made. A study centering in means for separating and stabilizing of various lipid materials shows promise of commercial application.

In bacteriology researches have found a way to extract a substance from autolyzed meat with fat solvents which depresses the heat resistance of bacterial spores, thus opening up the possibility of using less heat in food canning than has been necessary heretofore.

In swine nutrition effort has been devoted to artificial diets on which pigs can be raised from birth with promise of interesting developments in the program to produce disease-free pigs for research. Some advance has been made in the study of bloody dysentery.

In veterinary medicine new discoveries have been made on the effects of vaccination and virus diseases in gestating sows. The Institute reports that avoidance of vaccination or of exposure to virus disease in early gestation now prevents considerable economic loss.

In genetics notable progress has been achieved in the development of a miniature breed of pigs for research purposes. The Institute is already providing such pigs for medical research in cancer, diabetes, heart disease, and radiation injuries. Development of a longer and leaner Chester White pig is in progress—a move that has special promise in view of the contemporary tendency toward overproduction of animal fats.

The work of the Institute, begun only a little more than a decade ago under the inspiration of Jay Hormel and with the leadership of Professor H. O. Halvorson, has made gratifying progress under the direction of Professor W. O. Lundberg. The affairs of the Institute are under the supervision of an advisory board of which the dean of the Graduate School is chairman. During the biennium Dr. Hiram Essex of the Mayo Foundation was selected to fill the vacancy caused by the retirement of Dr. F. C. Mann, whose long services had a marked impact upon the Institute.

**Dight Institute**—This Institute has advanced its program vigorously, with a foundation of instruction in human genetics at undergraduate and graduate levels. Professor Sheldon C. Reed, the director, served as adviser to four students who received the Ph.D. degree during the biennium. The Institute's program of public education included talks by the director before various audiences throughout the state as well as on the radio. Because of the modest character of its endowment, the staff of the Institute is small, but considerable support for research and for other activities has been received from outside the University. The Rockefeller Foundation, which made a grant of \$27,000 for the Institute in the three-year period from 1951 to 1954, has generously provided a second grant of \$19,400 for 1954-56. A research project in breast cancer, supported by more than \$70,000 from the American Cancer Society and the United States Public Health Service, has now been completed, the results to be published ultimately in book form. The Minnesota Human Genetics League has continued to aid research on mental deficiency, and a preliminary report of results has been published. The biennium saw the launching of a genetics research program at the Rochester State Hospital under the direction of Dr. John S. Pearson, with the objective of reducing the frequency of Huntington's chorea, a genetic disease with dominant heredity. This project is a scientific progeny of the Dight Institute, for the pilot study of the disease was carried out there. The new move to apply and extend the work throughout the state is evidence of the importance of pioneering research done under the Institute. The Hill Foundation has made a grant to the Rochester State Hospital to help the new program. Meanwhile the Dight Institute, through public service, research, and reports, has made a secure place for itself, with a widening national and international reputation.

**Biological Station**—The Graduate School has continued its cordial interest in the Itasca Biological Station, and in 1953-54 the dean served as acting chairman of the faculty committee on policies of the Station. The activities of this well-equipped station were intensified in 1954 as a result of special grants from the National Science Foundation and the Fund for Advancement of Education. These made possible 10 awards to college teachers of biology and 20 to high school teachers for summer field experience. An unusually successful session followed, with rich returns to the teachers who held awards as well as to other students in supervised studies.

**Duluth Branch**—An important development was the launching in 1953 of a full program for the master of arts degree at the Duluth Branch, with majors in education and in curriculum and instruction. This was designed especially to serve elementary school teachers and principals, rural teachers, and secondary school teachers. Through several years cautious progress had been made toward the goal now achieved: authorization had been given for graduate students to carry two quarters of work on the Duluth campus and complete their studies for the Master's degree at Minneapolis; various members of the Duluth Branch staff had been appointed to membership in the graduate faculty; and courses in appropriate fields had been validated for graduate credit. Thus a foundation had been built. The academic dean at Duluth serves as coordinator of graduate work, and students work with ad-

visers on the Duluth Campus. The program is a part of, and under the jurisdiction of, the Graduate School and is identical in admission, candidacy, and degree requirements with parallel programs on the Minneapolis Campus. Forty-one staff members at Duluth offer courses carrying graduate credit in education, humanities, science and mathematics, and the social studies, and 71 graduate students enrolled for the first Summer Session, 1954. The program promises a constructive contribution to the educational advance of north-eastern Minnesota.

**Mayo Foundation**—As a division of the Graduate School the Mayo Foundation presents through its director, Dr. Victor Johnson, a report on its activities through the biennium. Here mention may be made only of the important addition to the Foundation's research facilities in a splendid new Medical Sciences Building, the occupation of a new Diagnostic Building, and improvements in hospital accommodations, with consequent stimulus to research and fellowship training. The enrollment of fellows continued at a high level, with 618 in the spring of 1954, and the graduate faculty at the Foundation numbers 262. Substantial progress has been made in the basic purposes for which the Foundation was established in 1915 as a part of graduate education at Minnesota.

**Administration**—The success of the Graduate School hinges centrally upon the teaching faculties, with all their manifold courses and seminars, advisory work on theses, and participation in hundreds of examinations at both the Master's and Doctor's levels. I wish to pay tribute to the devotion of the staff in meeting the heavy burdens of graduate instruction in addition to the prosecution of researches on a wide front. Of great value also have been the services of the graduate group and special committees, which deal with a bewildering variety of problems in relation to more than 5,000 graduate students in a single calendar year. The chairmen of the group committees constitute the Executive Committee of the Graduate School, which deals with larger problems of policy. Its membership at the end of the biennium included Dean Marcia Edwards and Professors William Anderson, Jonas J. Christensen, A. Orville Dahl, Norman J. DeWitt, William G. Shepherd, and Maurice B. Visscher, with the dean acting as chairman. Working closely with the committees and the faculty, the central office staff has efficiently processed thousands of applications and actions on student registration, petitions, examinations, and special problems in the succession of quarters and summer terms. Professor John G. Darley, promoted to associate dean in 1953, has continued his services on numerous committees, national and local, and in addition has assumed the editorship of the *Journal of Applied Psychology*.—THEODORE C. BLEGEN, dean.

### THE MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH

The Mayo Foundation counts as its major accomplishment the continuing confidence and support of the University and its Graduate School of which the Mayo Foundation is a part. An enduring purpose of the Foundation is to play its proper role in the University in education and research: to bring credit to the University because Mayo Foundation fellows graduate as well-trained medical specialists; and because fellows and faculty alike contribute importantly to the research achievements of the University.

**Research Facilities**—At the beginning of the biennium, in September 1952, the Medical Sciences Building was dedicated. The newly-completed addition more than doubled the floor space. The building fulfilled certain long-sought research goals: to bring together, in one modern, conveniently-located structure, the institution's laboratory facilities for medical education and research; and to provide opportunities for closer collaboration not only between the various basic science sections, but also between the research laboratories and the clinical and surgical groups. During the biennium it has been amply demonstrated that these desired ends have been well met by the facilities of the Medical Sciences Building.

**Educational Facilities**—Beginning in the autumn quarter, 1953, the new Mayo Clinic diagnostic building began to be occupied. This building, providing more than double the space available in the old Mayo Clinic building, was designed to facilitate and improve patient care, which is an indispensable ingredient of graduate medical education. There is improved and increased space for fellows to work. Also, each floor where patients are seen has a well-equipped seminar classroom, where frequent meetings of staff and fellows occur for educational purposes.

A major purpose in building the new diagnostic unit was to so facilitate the clinical work of the staff that increased time and energy would be available for teaching and research. Research will be further aided by the close proximity of the Medical Sciences Building.

It is expected that the new Clinic Building will be completely occupied in the fall of 1954. It is planned that this physical move will free space in the old Mayo Clinic building to permit a great expansion of the library, already one of the world's leading medical libraries. Improved and enlarged quarters for the administrative offices of the Mayo Foundation are also planned.

**Hospital Improvements**—In January 1954, the "downtown" hospitals in Rochester (i.e., the Colonial Hospital, the Worrall Hospital, and the Worrall Annex) were purchased by a group representing the Methodist Church. These hospitals, now known collectively as the Rochester Methodist Hospital, will be operated by a church-affiliated board. They provide extensive hospital facilities for the fellowship educational program.

The transfer to church ownership is considered an important milestone toward the ultimate "one-roof" goal for the downtown hospitals. Both the care of patients and the training of fellows will benefit materially from the anticipated incorporation of all hospital facilities, except those of St. Marys, into an expanded single Rochester Methodist Hospital.

St. Marys Hospital, which is the largest private general hospital under one roof, in the world, provides about two-thirds of the clinical facilities employed in the fellowship program. This hospital, in 1954, commenced another of its periodic construction projects, concerned mainly with replacement of obsolete units.

**Faculty**—At the close of the biennium, the Mayo Foundation faculty consisted of 262 members with academic ranks in the Graduate School of the University as follows: 75 professors, 58 associate professors, 59 assistant professors, and 70 instructors. These faculty members constitute 87 per cent of the permanent staff of the Mayo Clinic.

As the responsibilities of the institution increase, the staff is enlarged. Increasing care is exercised to limit staff appointments to physicians who not only provide a high level of medical care to patients but who also give promise of academic proficiency and achievement in teaching and research.

**Fellows**—Despite the plethora of training opportunities, at the residency and fellowship level, in the country's hospitals, the Mayo Foundation has been able to maintain its high standards for fellowship appointments. It will be the policy of the Foundation to appoint fewer fellows rather than inferior fellows, should applications diminish materially in quantity and quality, as has occurred in many institutions.

During the last quarter of the biennium (Spring, 1954) there were 618 fellows of the Mayo Foundation. Of these, 161 were in internal medicine, 171 in general surgery, and 286 in all other fields.

Sixty-one fellows were on military leaves of absence.

During the biennium, there were 126 academic degrees conferred by the University upon Mayo Foundation fellows, of which 12 were Ph.D. degrees; the remainder were M.S. degrees.

**An Appreciation**—The faculty and administration of the Mayo Foundation are deeply appreciative of the trust placed in them by the Board of Regents, the president, and the dean of the graduate school. The goal of the Mayo Foundation is to be worthy of that trust and to warrant a just pride by the University in the Mayo Foundation's accomplishments in medical education

and research.—VICTOR JOHNSON, *director*, and RAYMOND D. PRUITT, *associate director*.

### THE GENERAL COLLEGE

**Conservation of Human Resources**—The faculty of the General College counts it a privilege to submit a report of its stewardship through the president of the University to the people of the State of Minnesota who support the University, and especially to the parents of students enrolled in this college. The report could follow established patterns. It could include information relating to faculty achievements, curricular changes, inter-college relationships, future plans, results of special surveys, statistics. Such information, however, in addition to being available elsewhere, pictures only the background for our activities. It does not illuminate what our purposes are, what we try to do for the young people we serve.

For these reasons, this report is cast in human terms. Presented here are actual case histories (only the names are fictitious) of four of our students. These case histories were selected from the hundreds in our files because each of them illustrates one of the basic functions of the General College: Exploratory, Re-orientation, Pre-transfer, and Terminal General Education.

1. Joe Larson is a veteran of World War II. Ten years away from school, including a six-year hitch in the Navy, rusted a high school education that at best failed to meet qualifying standards for admission to a four-year college program. Hesitance in speech, inability to make words say what he wanted to say, indifference to a printed page—all marked Joe as a prospective failure in college. Yet Joe had creative ability with colors. When he could illustrate with diagrams and pictures what he could not communicate in words, Joe became a different person.

What role should we play with Joe? Should we be repairmen? Mold his speech? Re-tread his vocabulary? Polish his writing? Add all the verbal and academic accessories required to make him fit traditional patterns of learning? Or, should we adopt the alternate plan of being talent scouts?

The alternative was challenging, and more fun. We decided to take Joe as he was, but to help him explore his potentialities. We hoped to take away the shackles and inhibitions of poor grades and lack of credits. We wanted to excite his curiosity, stimulate his imagination, show him that there were wider visions *he* might open, deeper feelings *he* might experience, whole areas of knowledge *he* might explore if once he found the right path to follow.

Counselors, administrators, and teachers in the college joined forces, as always, to encourage Joe to become a creative craftsman and to devise ways of adjusting his diverse abilities to classroom learning experiences. In speech classes, for example, Joe recited poetry and translated the verbal images to vivid pictorial ones on an easel placed before his listeners. In biology, Joe made flip charts to illustrate his report on modern medicine and the important use of plasma in times of disaster. In social science he was voted the best informed student in class partly because of his pictorial presentation of aspects of the Marshall Plan. Joe completed his work in art laboratory with a one-man show that aroused campus-wide attention. Gradually academic work took on new fascination for Joe, and soon whatever he did became pervaded with an air of inner excitement and pleasure.

We are proud to report that Joe made the Dean's List in the General College, and that he transferred to University College where his program of study was carefully planned by persons who had been alerted to Joe's possibilities. Each year following, his name appeared on the Cap and Gown Day Honors List, and in June, 1953, Joe was awarded the B.A. degree *cum laude*. Without the General College, Joe would not have had an opportunity to become an effective citizen because he had been rejected. Because of the General College, Joe now holds an important position as head of the art division of a large advertising concern. His experiences illustrate the *exploratory* function of the college.

2. Richard Paulson entered the University's Institute of Technology from a small Minnesota high school because his uncle, an engineer, promised to

subsidize Dick's college education and to give him employment if he would enter engineering. Everyone concerned regarded the plan as an excellent one, without pausing to think whether or not Dick was suited for engineering.

Dick was dropped for low scholarship after two agonizing quarters in the engineering program. It was a severe blow to him and a serious shock to all who were interested in him. Those who knew Dick were sure that he had ability. It was quite apparent, however, that whatever his abilities were, they did not lie in the field of engineering. What was he to do? None of the four-year colleges would admit a student having a college record such as his. Dick was beginning to think that the University could do nothing more for him when someone suggested that he talk to faculty members in the General College.

Dick therefore discussed his situation with a General College faculty committee. The committee quickly became aware of the fact that this very dejected young man had real potentialities, and its decision was to give him a try in our program. He was encouraged to work with the college counselors to find where his aptitudes placed him. His first quarter in the college was only fair, but Dick was beginning to regain confidence and to acquire some idea of what his real talents and interests were when World War II began, and he was called into military service.

Dick's post-war record in the college was excellent. He earned the associate in arts degree and transferred to University College where he registered for courses in business administration and psychology. After two years he graduated *magna cum laude* and was elected to Phi Beta Kappa. He continued in the Graduate School through the M.A. degree and then entered industry. Today this young man, who but for the General College would have left the University a failure, holds a responsible position in the employee training division of one of the nation's largest manufacturing concerns.

Of course not all of our rehabilitation experiences are this spectacular. However, many students, like Dick, whose original plans proved to be impossible to achieve, are using our general education courses and our counseling services to work out appropriate educational plans. Dick's story illustrates the *re-orientation* function of the General College.

3. William Schneider entered the General College with no idea of what he wanted to be, but with the hope that college would prepare him for something. He had never liked school, and he had not done well in his studies, but he naively supposed that college would be different. His father did not believe in higher education, and gave Bill only *grudging* permission to try college providing he would pay for it himself. Resentfully but doggedly, Bill earned enough money for his first quarter.

Each of Bill's troubles is common to a goodly number of our freshmen. Any of them can interfere markedly with a student's chances of success. The combination of all of them in the person of one student can easily result in complete failure. Two things prevented catastrophe for Bill: he himself sought help early in the year, and the help he needed was available in the General College counseling division.

Bill came to a counselor for aid in finding a part-time job, and his various troubles came to light during the interview. Together, he and his counselor planned a line of attack. Referral to the University's Student Employment Bureau located a job demanding only a reasonable number of hours per week and bringing in enough money to see Bill through his first year. In the course of a series of talks with the counselor, Bill discovered what was wrong with his study habits and learned what to do to improve them. He learned how to budget his time, making ample provision for work, study, and recreation. The counselor explained to Bill the meaning of the aptitude and interest tests he had taken as an entering freshman, and helped him plan a frankly exploratory program of widely varied courses for his first quarter.

As he began to know himself better and to experience particular success in mathematics, Bill arranged for further try-outs in accounting and economics. By the middle of Bill's second year, his problem of vocational choice was happily solved by his decision to become an accountant and to transfer to the pre-business program in the College of Science, Literature, and the Arts. Equally important, however, was Bill's discovery that learning itself is

fun, that all sorts of courses, not only those related directly to his future work, gave him immense pleasure and satisfaction. Bill's improved grades earned him a scholarship for his junior year, and Bill's father became so proud of his son's achievement that he agreed to finance the senior year.

Bill's story could not have had a happy ending without his own early awareness of the need for assistance and his own willingness to go to work on his own problems. Nor would this happy ending have become a reality except for the General College. The college is committed to a policy of giving a chance to every applicant for admission. It is staffed with instructors who believe in the dignity and worth of every individual student, and with counselors who have both the time and the training to work with any student, whatever his needs. Bill's experience illustrates the *pre-transfer* function of the General College.

4. Joe, Dick, and Bill were students who passed through the General College and continued their work in one or another of the four-year colleges of the University. Peter Stanton's history is the story of a man who attended college, the General College, for two years and no more. It is the story of a man with a wife and a family, a man who had worked at a factory job for ten years but who had kept the dream of a college education alive in his heart.

When Peter Stanton was released from military service, his G.I. benefits gave him a chance to go to college, if he could get to a college. He returned to his job, but he requested and obtained transfer to the Twin Cities in order to attend the University. Because he had graduated from a technical high school, Pete found he could enter the University only through the General College. He was thrilled to be able to take advantage of this opportunity, and set himself the goal of completing the two-year program and earning the associate in arts degree.

This was a pretty tough goal for Pete. His family, his home, and his job responsibilities did not leave much time for college. We can remember that he used to come to class tired and often hollow-eyed, but with his work always well done and his curiosity working overtime. His grades were excellent. He always delighted us with his air of astonishment that he, "Overalls Pete," was making the Dean's List quarter after quarter. Finally one June evening, Pete crossed the commencement platform, his long cherished goal attained.

Then events began to occur that Pete had never anticipated. His supervisor saw Pete's name listed in the newspaper among those of the other degree candidates. He urged Pete to apply for a position vacant in the company offices. The new two-year degree and the character that helped Pete earn it got him that position, his first white-collar job, with better hours, better pay, and all that these things mean to a family man. He is now manager of his division for the entire Upper Midwest. He is still happy, still enthusiastic, and still going on up. His story is fairly typical of many General College students.

We are proud of these students and proud to be associated with a University that provides a college tailored to the needs of those like Peter Stanton—students for whom a two-year program is a serious challenge, students with very real ability who deserve an opportunity to develop that ability. Their experiences illustrate the *terminal general education* function of the General College.

The case history of the General College itself begins in 1932 when it was set up for the purpose of attempting to solve two persistent University problems. One of these was the high rate of drop-out among students who registered in the four-year colleges of the University. The second was the fragmentary education students received at the freshman and sophomore level, composed as it is almost entirely of introductory courses intended as the foundation for work in the junior and senior years, which almost half of the students never reach.

To solve the drop-out problem, a top-level, all-University committee recommended establishment of a new unit, a two-year instead of the traditional four-year college. This new college would enable students who remained only two years at the University to complete a planned program of studies and to get a two-year degree, the A.A. or associate in arts degree.

To solve the second problem (that of the fragmented program largely unrelated to the life activities of student and adult years) the committee proposed modifications in existing courses and development of several new kinds of courses. The modifications were to be in the direction of broadening liberal arts offerings in the natural sciences, social sciences, and the humanities. Each course was to be as complete and meaningful in itself as possible, and open to any freshman or sophomore student without being fenced by a string of prerequisites. Thus students would be enabled to explore in several directions without too much of a time and expense penalty if they ventured in the wrong direction.

The new courses to be developed were to focus upon certain common activities in present-day American society. They drew their content from many fields integrated into a new and meaningful pattern. These new courses have retained their original names of Home Life, Vocational, Socio-Civic, and Individual Orientation. Once again the University set its best faculty members, from practically all of the colleges, to the task of modifying, developing, and teaching these new courses for this new unit. The program they planned and executed so well, and which they pioneered, has become known as "general education."

That was over twenty years ago. At least half of the liberal arts colleges in the country now have followed this lead and have developed their own programs of general education.

The purpose of the General College, in short, is the conservation of human resources. The students whose stories have been told here are typical of the most important product of the State of Minnesota—its human resources. Without the opportunity the General College offers, these resources would be largely wasted—wasted to our social life, to our economic life, to our democratic commonwealth. The welfare of our state is in direct ratio to the welfare of the people who inhabit it and who constitute, in fact, the state. As the one prospers and fulfills its potentialities, so does the other.—HORACE T. MORSE, *dean*.

## UNIVERSITY COLLEGE

University College, established by action of the Regents in June, 1930, has now been in operation for twenty-four academic years. It was established to provide for the best interests of the unusual student. In a large institution, the machinery is necessarily geared to care efficiently for the majority of the students, and it cannot be set up to provide in a routine manner for the unusual student—unusual in that he differs from the average student in intellectual capacity, in previous training or experience, in professional aim or otherwise. These were the purposes stated in the first biennial report after the college was established. They continue to be the objectives of the college although it must be noted that the orthodox colleges and divisions of the University have inaugurated a variety of measures to provide for the unusual student and because of these policies there have been fewer calls upon University College. Whenever a student can be accommodated and have his objectives provided for in another college, he is directed to that college.

During the past two years 51 students received degrees from this college. Enrollment in the College for 1952-53 averaged 50 per quarter and 60 for 1953-54. The average number of credit hours presented for a degree exceeds that of other four-year colleges. The quality of work equals, at least, that of other graduates. An examination of the records shows that the number registered in University College is always a small fraction of the total in the University and fluctuates with that number.

During the biennium, programs of varying degrees of emphasis were carried by the students. A few examples may illustrate the variety of emphasis. One student took work in forestry, economics, and architecture to prepare for lumber and hardware merchandising. Another, aiming at recreational leadership, took work in psychology, child welfare, and education. Another student took work in clothing construction, business school, sociology, and psychology to prepare for a career in clothing merchandising. One young woman interested in becoming more proficient as a secretary is combining

business courses with liberal arts courses in the College of Science, Literature, and the Arts.

The College requires no separate teaching staff, office space, or budget except for part-time secretarial aid. It does utilize the time of staff members of all colleges in advising students—time that is given freely and generously for the most part since it is recognized that the students' interests are served.

Although an arrangement such as University College is rather unique and not commonly found in education institutions, its value and role are recognized at the University of Minnesota.—J. WILLIAM BUCHTA, *chairman, University College Committee.*

### DULUTH BRANCH

For the Duluth Branch, the 1952-54 biennium was marked both by significant new development and by consolidation of gains made in prior years. The completion or beginning of three major facilities, the authorization of the master of arts degree in education or in curriculum and instruction, and a firm upward trend in both regular and summer enrollment were among biennial highlights.

**Health and Physical Education Building**—A \$1,600,000 health and physical education building was completed and opened for classroom, office, and athletic use. Although classes began at the opening of the 1953-54 academic year, formal exercises marking its completion were held December 12, 1953, with Minneapolis campus, other Minnesota Intercollegiate Athletic Conference and Duluth area leaders participating. Approximately 8,000 persons attended various inaugural activities, including Open House on December 13. The building has been widely acclaimed as one of the finest of its kind.

**Library**—On April 19, 1954, ground was broken on a \$700,000 library unit, first phase of a development designed to meet the growing needs of the Duluth Branch. Upon its completion, scheduled in the spring of 1955, the unit will temporarily accommodate certain classes as well as library service.

**Air Force ROTC Facility**—In 1953 a new Air Force ROTC building was constructed adjacent to the health and physical education building. Staff and cadet offices, classrooms, supply office, and storage and other facilities are provided. Inspecting parties from many communities, colleges, and universities have stated that the Duluth Branch structure, with separate operational area specifically designed for the program, is ideal. The Air Force ROTC program continued to enjoy considerable campus, community, and area prestige. For its 1954 spring parade, inspection and review, and open house, the corps invited Albert Woolson, Duluth Civil War veteran, who at 107 years of age is the sole survivor of the Grand Army of the Republic. His presence lent color and drama to the occasion.

**Student Service Center and Kirby Gift**—The gift of \$400,000 by Stephen R. Kirby, Duluth and Iron Range banking pioneer, toward construction of the student service center, announced at a meeting of civic leaders in the Kitchi Gammi Club September 8, 1953, assured a facility which until that time had been only two-thirds underwritten. The 1953 legislature appropriated \$400,000 and approved a special St. Louis county levy that would yield another \$400,000. Other gifts and campus income will permit construction of a facility exceeding \$1,300,000 in valuation. Architect's plans and specifications were completed for a September, 1954, call for bids, covering the Center itself and a number of the cottage-style dormitory units especially designed for the Duluth campus.

**Bagley Gift**—A 16-acre gift of land by Dr. and Mrs. William R. Bagley and their daughter, Dr. Elizabeth Bagley, increased the new campus area to 196 acres. Located on the northern edge of the original 160-acre tract, the new gift provides an ideal setting for development of recreational facilities, nature trails, and other services that will benefit both campus and community.

**Football Field and Track**—To the south of the health and physical education building, a regulation football field and cinder track were constructed.

Grading, filling, tiling, and sodding represented a considerable outlay well justified in the convenience and efficiency assured the Duluth Branch athletic and recreational program. For the present, the football field will be used only for practice and for any other events suitable to the field.

**Alworth Estate**—The Alworth Estate, a block of property and structures given in the previous biennium by the Royal D. Alworth family, continued to yield much value for the Duluth Branch program. The former residence of the donors was placed into use as a home management facility for the home economics department. The condition and furnishings made necessary only minor alterations and additions. Another large residential unit on the premises was converted during the summer of 1954 into nine faculty housing units. In the previous biennium, a greenhouse on the property was moved to adjoin the Science Building, where it is now an important adjunct of the Science and Mathematics Division.

**General Improvement**—Paving of driveways and parking areas of the old campus, laying of new sidewalks and blacktopping entrances to the new campus, provision of parking areas for several hundred cars near the health and physical education building—a special advantage when district and regional basketball tournaments are held—and erection of street lighting on the new campus were among other improvements.

**Provost and Academic Dean Appointments**—On September 1, 1953, John E. King, who came to the Duluth Branch in 1947 as academic dean and became provost in 1951, resigned as provost to accept the presidency of Kansas State Teachers College at Emporia. The Board of Regents approved President J. L. Morrill's appointment of Raymond W. Darland as provost, September 1, 1953. Dr. Darland had been academic dean from July 1, 1952. On March 1, 1954, the Board of Regents approved appointment of Thomas W. Chamberlin, former head of the geography department, as academic dean.

**Faculty**—During the biennium, the faculty has averaged approximately 95 in number of full-time positions. Approximately 10 persons fulfill part-time teaching duties.

**Research Grants**—A number of Duluth Branch faculty members have engaged in research under various grants during the biennium. Nine have received research grants from University agencies, including the Graduate School and the Greater University Fund.

**Faculty Handbook**—Publication of the Faculty Handbook, edited by Leonard B. Wheat, associate professor and head of the secondary education department, and printed in the Duluth Branch's duplicating room, marked the crystallization of many policies governing Duluth Branch practices and procedures. It has won commendation not only of the staff but of persons in other colleges and universities.

**General Bulletin**—Placed in the printer's hands was the new 148-page general bulletin, containing general information and description of courses, edited by Thomas W. Chamberlin, academic dean. The bulletin lists 880 courses, including 95 graduate courses. By divisions, they number: Education and Psychology, 275; Humanities, 273; Science and Mathematics, 167; Social Studies, 153; and Air Science, 12.

**MIAC Conferences**—The Duluth Branch's intercollegiate athletic relationship was crystallized on May 22, 1954, when the faculty representatives of the Minnesota Intercollegiate Athletic Conference voted to award the Branch full membership, effective in the spring of 1955. During the prior five years, the Branch had held probationary membership.

**Community and Area Relationships**—Community and area relationships were strengthened through numerous conferences, institutes, and community-campus events. The Duluth Branch campus became a popular site for civic and professional institutes. Among many successful events was a Language Arts conference in February, 1953, which attracted more than 250 teachers and other participants from a wide area; a football coaching clinic with Bernie

Bierman, Gene Ronzani, and other authorities that drew more than 150; and various institutes held in conjunction with area educational and civic agencies, the General Extension Division, and other University offices.

**Tweed Gallery Attendance**—Tweed Gallery, northern Minnesota's only facility devoted exclusively to art exhibition, attracted 7,498 persons during the year 1953-54, a record in the Gallery's four-year history. During the 1952-53 year, attendance totaled 3,281. It is playing an increasingly significant role in the area cultural and social life.

**Musical Iconography Archives**—Albert G. Hess, assistant professor of music, established archives of musical iconography with the assistance of the Greater University Fund. As the archives expand, they will become increasingly useful to music scholars throughout the country.

**New Scholarships**—New scholarships were established by the Duluth Association of Small Loan Companies, the Duluth Federated Trades and Labor Assembly (AFL), the United Steel Workers Local 1028, the Duluth Teachers Association, the Duluth Newspaper Guild (CIO), the Duluth Engineers Club, and the Head of the Lakes and Iron Range Hoo-Hoo Club. A new general program, the North Star Scholarship Fund, also was established with gifts from various area donors. These represent growing awareness of the regional educational opportunity represented by the Duluth Branch and of the need for helping deserving but inadequately financed students.—RAYMOND W. DARLAND, *provost*.

### GENERAL EXTENSION DIVISION

**Evening and Special Classes**—Enrollments in evening extension classes dropped the first year and then swung upwards, as they had in the previous biennium. Total enrollments in 1952-53 were 18,371 (1951-52, 18,810); in 1953-54 they were 18,561. Veteran enrollments dropped suddenly from 7,053 (32 per cent of total) in 1951-52 to 4,340 (24 per cent) in 1952-53, leveling off, with the increase in numbers of Korean veterans, in 1953-54 to 4,082 (22 per cent). Business courses claimed the largest number of veteran registrations, with general collegiate courses next and engineering third. Statistics appear in Table I.

TABLE I. EVENING AND SPECIAL CLASSES

	1952-53	1953-54
Summary of evening classes:		
Number of enrollments		
General classes	11,115	11,483
Business classes	4,747	4,499
Engineering classes	2,509	2,579
Totals	18,371	18,561
Net change over previous year	-439	+190
Number of classes given	857	867
Number of individuals in classes	11,384	11,722
Net change over previous year	+182	+338
Summary of short courses:		
Number of short courses	16	17
Number of registrations in short courses	1,882	3,035

Trends in types of classes attended have changed slightly during this biennium. Enrollments in engineering classes continue to inch upwards; enrollments in business classes have dropped consistently since 1950-51, at a somewhat faster percentage rate than total enrollments; general class enrollments have, on the other hand, climbed steadily since that time.

The number of classes offered has remained fairly constant in the last three years.

Short course attendance dropped in 1952-53 and then increased in 1953-54. A major contributor to the increase was a program initiated in 1952 with the Federal Bureau of Investigation, which brought 320 registrations in 1952-53

and 882 in 1953-54. A series of Insurance Workshops, which began in 1953-54, accounted for 301 registrations in that year. Workers Education enrollments climbed from 315 to 469 over the biennium.—HUNTINGTON MILLER, *assistant dean*.

**Correspondence Study**—Perhaps the most significant item in the Correspondence Study Department's biennial report is the return to almost a completely "civilian" status. For the first time since World War II, government contracts have not been an important factor in correspondence enrollments. In 1952-53, the contract with the United States Armed Forces Institute was directly responsible for 902 of the 3,458 registrations accepted, or 26.1 per cent. This contract was terminated in July 1953, but fortunately registrations dropped less than 11 per cent in the second half of the biennium. Veterans registered under contracts with the Veterans Administration provided very small percentages of total enrollments (4.2 per cent for 1952-53 and 3.1 per cent for 1953-54). Statistics are found in Table II.

TABLE II. CORRESPONDENCE STUDY ENROLLMENTS

	1952-53	1953-54
<b>Regular courses</b>		
Registrations in force beginning of year .....	3,739	3,384
New registrations during the year .....	3,458	3,102
New registrations made through the USAFI .....	902	0
New registrations made under the G.I. Bill of Rights .....	144	95
Reinstatements from previous years .....	120	134
Reinstatements (registrations expiring within the year) .....	784	711
Total registrations in force during the year .....	7,317	6,620
Registrations terminating during year .....	4,717	4,475
Registrations in force at close of year .....	3,384	2,856
<b>Special courses</b>		
Citizenship		
New registrations during year .....	89	74
<b>Individuals enrolled (regular courses)</b>		
New registrations .....	2,910	2,774
Total active registrations during year .....	6,156	5,360
<b>Lesson reports received</b>		
Regular courses and citizenship .....	31,536	33,477
<b>Geographical distribution of new students</b>		
Minnesota .....	1,505	2,020
Other states .....	978	667
Out of the United States .....	44	36
Army Post Office .....	213	31
Fleet Post Office .....	170	20
Number of states represented .....	49	47
Number of foreign countries represented .....	13	13
<b>Courses offered</b> .....	280	288
<b>Instructors</b> .....	123	129

A break-down of the statistical data indicates that the total of new registrations in 1952-54 is about 8 per cent lower than for the previous biennium. (Military and veteran enrollments accounted for 40 per cent of new registrations in 1950-52 as compared to 17.4 per cent in 1952-54.) In the first half of the most recent biennium, 3,458 new registrations were processed. Of this number 69.7 per cent were civilian, 26.1 per cent military personnel under the USAFI contract, and 4.2 per cent veterans. For the second half of the biennium, 3,102 registrations were made and 96.9 per cent were civilians and 3.1 per cent veterans.

During the biennium several new courses have been developed or planned. These include courses in American Diplomatic History, Real Estate, Historical Geology, Hospital Recreation, Heat Transfer, Interior Design, Beginning Chinese, Education of the Exceptional Child, History of Ancient Near East, Beginning Polish, Beginning Serbo-Croatian, Industrial Supervision, Advertising Copy Writing, Garden Flowers and Home Gardening, The United Nations in World Affairs, Public Personnel Administration, and a series of special courses for electrical workers. The latter was a new venture for correspondence instruction as courses were developed to meet specific educational

needs in a specific industrial area. Favorable experience would indicate expansion of special courses in other technical areas. The weakest area in correspondence instruction is in education. Additional home study courses should be developed for teachers' in-service training programs. In spite of critical teacher shortages, Minnesota has not had an effective correspondence program to supplement resident instruction. Other states have made efficient use of this method to provide professional subjects to teachers unable to participate in resident classes.

An enrollment reduction within the biennium is not reflected in the total income. Receipts were actually higher in the second half of the period. Moreover, expenditures, other than salaries, decreased. Fortunately the elimination of the 26 per cent military enrollment did not bring a corresponding loss of revenue. While the military contract enrollments consistently supplied about one-fourth of the total registration, the income from these registrations was less than 10 per cent of the total receipts. It seems evident that government contracts related to correspondence study bring relatively little income, significantly increase the cost of operation, and are a financial burden to the department.

Geographically it is noted that correspondence instruction continues basically to serve the adults of Minnesota. More than half of all registrations originate in Minnesota, but nearly all states are represented. About 55 per cent of the students enrolled successfully complete their courses.—F. LLOYD HANSEN, *director*.

**University Program Service**—The University Program Service serves two major functions off campus: it provides programs of all types, from those of pure culture to those of high entertainment value, to public and parochial schools of our area; it maintains a list of approved speakers who are available for commencement speaking.

Statistics from Table III show that substantial gains were made over the previous biennium in number of schools and organizations served, number of

TABLE III. UNIVERSITY PROGRAM SERVICE

	1952-53	1953-54
<b>School Assembly</b>		
Number of programs used .....	23	24
Number of schools and organizations served .....	773	844
Number of engagements filled .....	3,286	3,328
<b>Concert, Theatre, and Lecture Service</b>		
Number of programs used .....	40	30
Number of colleges and organizations served .....	101	81
Number of engagements filled .....	426	349
<b>Drama Advisory Service</b>		
Number of volumes on inventory .....	6,055	
Number of requests filled .....	1,476	
Number of plays loaned .....	4,723	
Number of books added .....	606	
Number of plays reported selected .....	326	
Number of inactive plays .....	688	

engagements filled, and total receipts. The Service has been self-supporting during the past biennium.

Within the past two years, the Loan Play Library has expanded the scope of its service and has been made a separate operation under a new title, the Drama Advisory Service.

A further report of the biennial activities of the University Program Service appears elsewhere in this volume in the report of the Department of Concerts and Lectures by which, with the General Extension Division, the Service is operated cooperatively.—JAMES S. LOMBARD, *director*.

**Radio Station KUOM**—By 1954, KUOM established itself as one of the leading educational radio stations in the United States. With three staff members holding important administrative and committee positions of the National Association of Educational Broadcasters, KUOM has played an important role

in the development of educational broadcasting nationwide. By July 1954, KUOM had accumulated 43 local and national awards for outstanding contributions in the field of educational radio.

Television has played an increasingly important part in KUOM activities. One of the first grants-in-aid to be given to KUOM in 1952 was for a series of television programs featuring the Minneapolis Symphony Orchestra. Since the fall of 1952, as a part of its regular schedule of operations, KUOM has regularly planned and produced at least one or two educational television programs per week for telecast over local commercial outlets. Staff members, via workshops and informal seminars, have accumulated a notable degree of skill in educational television presentation.

During the fall and winter of 1952, KUOM staff members participated actively in the University of Minnesota's cooperative effort with the State Citizens' Committee for Educational Television toward obtaining legislative funds for an educational television network for Minnesota. KUOM was asked to formulate a master plan for the network, which involved three months' exhaustive collection of data regarding population density, terrain, and related geographical factors as well as engineering and cost data directly related to television operation. As a result of this activity, KUOM provided the major share of technical information to the Committee during the entire legislative campaign of 1953. Although the campaign failed, much valuable information and experience were accumulated toward future educational television plans for Minnesota.

The above activities in no way hindered a steady improvement in the quality of KUOM's radio programming. Early in 1952, a long-range citizenship project was planned in depth—a project which would provide KUOM listeners with a wide variety of information and background in the fields of political science and international affairs, preparatory to the important national elections in the fall of 1952. In 1953 KUOM produced its major educational series to date, *The Classical Tradition*, a series of 80 programs, each 45 minutes in length, which would thoroughly explore the great writings and ideas of ancient Greece and Rome. Combining classroom lecture techniques with dramatic illustrations, this series was acclaimed both nationally and locally as one of the finest educational radio series ever produced.

Burton Paulu, general manager, was the first educational radio station manager to be sent overseas for study as a Senior Fulbright Scholar. During the academic year of 1953-54, Mr. Paulu was attached to the University of London, where he was engaged in exhaustive research in the field of British broadcasting.

KUOM's Minnesota School of the Air continued to provide an ever-increasing number of Minnesota classrooms with outstanding educational radio material for in-school listening. Bulletin and handbook requests indicate that the School is now serving over 500,000 school children in the state of Minnesota alone.—BURTON PAULU, *director*.

**Municipal Reference Bureau**—The Municipal Reference Bureau acts in a dual capacity. It serves as headquarters of the League of Minnesota Municipalities and at the same time conveniently places the available University services at the disposal of citizens, including officials, interested in municipal problems. The director of the Bureau also directs the League and is a member of the faculty of the Political Science Department. This interchange of directorates works out for the advantage of all concerned. It provides a means for advanced or graduate students in political science and public administration to prepare reports on special problems of concern to municipal officials. Two half-time research assistantships are included on the staff for this purpose.

The Bureau's statistical record is found in Table IV. In addition to the inquiries, publications, conferences, research and consulting service, short courses, and committees listed in that table, a field representative retained by the Bureau brings closer and more frequent contact with the municipalities and their officials. During the period from September 1952 through May 1954, 130 municipalities were visited, 266 municipal officials seen, and 6,600 miles traveled.

Aside from the basic contact which the director of the Bureau has had as executive secretary of the League of Minnesota Municipalities, he has con-

TABLE IV. MUNICIPAL REFERENCE BUREAU ACTIVITIES

	1952-53	1953-54
Number of inquiries .....	2,653	2,767
Publications .....		
Monthly magazine, total copies published .....	90,797	90,233
Reprints and other publications .....	5	4
Conferences and conventions .....		
Annual conventions, attendance .....	595	576
Regional meetings .....		
Number held .....	18	17
Attendance .....	1,275	1,151
Research and consulting service .....		
Municipalities receiving charter or municipal reorganization consultation service .....	9	14
Short Courses .....		
Number held .....	6	6
Attendance .....	592	573
League Committees .....		
Study .....	4	10
School .....	7	7

tinued to hold a number of important civic and governmental positions.—CLARENCE C. LUDWIG, *director*.

**Center for Continuation Study**—The 1952-54 biennium saw new records set at the Center for Continuation Study. Number of courses offered totaled 283, as compared with 223 for the previous biennium; 17,877 persons registered, compared with 13,422 in the 1950-52 biennium. Over two and one-half courses, on the average, were housed in the Center on each working day of the biennium, totaling 1,280 course days. Not enumerated in these figures are the many other educational, cultural, and civic groups using the Center as a meeting place. Room accommodations for 75 persons in the dormitory were substantially used, with an average of 63 persons in attendance. Tables V, VI, and VII contain statistical data for the Center.—FREDERICK BERGER, *director*.

TABLE V. CONTINUATION COURSES AND INSTITUTES

	1950-52	1952-53	1953-54	1936-54	Per Cent or Average
Number of courses .....	223	138	145	1,443	...
Number of registrations .....	13,422	8,298	9,569	79,197	100
Minnesota .....	10,476	6,524	7,666	61,885	78
Other U.S. states .....	2,814	1,689	1,805	16,520	21
Foreign countries .....	132	87	98	792	1
Male registrants .....	9,263	5,125	6,296	50,363	64
Female registrants .....	4,159	3,173	3,273	28,834	36
Number on faculty .....	3,195	1,956	2,030	22,228	15
Course hours .....	7,353¼	3,757¼	4,014	49,683¼	34
Course days .....	1,179	607	673	9,214½	6

TABLE VI. ATTENDANCE AT TYPES OF COURSES, 1936-54

	Number of Courses	Registrations		
		Number	Per Cent	Average
Medical .....	279	12,875	16.3	46
Educational .....	176	11,169	14.1	64
Hospital service and public health .....	159	9,111	11.5	57
Commercial .....	113	8,122	10.3	72
State-municipal functions .....	121	7,180	9.0	59
Technological .....	52	7,128	9.0	137
Social welfare .....	108	6,572	8.3	61
Civic and cultural .....	76	4,592	5.8	61
Nursing (July 1, 1948 to June 30, 1954) .....	59	3,744	4.7	59
Dental .....	178	3,504	4.4	19
Labor .....	20	1,742	2.2	87
Legal .....	17	1,172	1.4	69
Pharmaceutical .....	17	802	1.2	47
Kenny technique (technicians, nurses) .....	38	537	.7	14
National defense .....	6	506	.6	84
Kenny technique (physicians) .....	24	441	.5	18
Totals .....	1,443	79,197	100.0	55

TABLE VII. CONTINUATION COURSES AND INSTITUTES BY TYPES, 1936-54

	Number of Courses	Registration	Minnesota	Other States	Foreign Countries	Men	Women	Number on Faculty	Course-Hours	Course-Days
Medical .....	279	12,875	5,972	6,542	361	11,874	1,001	5,654	12,567½	2,331½
Dental .....	178	3,504	2,485	986	33	3,206	298	1,215	4,917¾	849½
Educational .....	176	11,169	9,407	1,706	56	4,495	6,674	3,082	4,252	707
Hospital service and public health .....	159	9,111	6,982	2,070	59	1,158	7,953	2,698	8,934¾	2,176¾
State-municipal functions .....	121	7,180	6,900	246	34	6,749	431	2,026	2,196½	348½
Commercial .....	113	8,122	7,362	727	33	7,575	547	1,672	2,330¼	342½
Social welfare .....	108	6,572	5,844	705	23	2,668	3,904	1,611	2,145	366
Civic and cultural .....	76	4,592	4,121	453	18	1,213	3,379	1,134	1,514	250¾
Nursing (July 1, 1948 to June 30, 1954) .....	59	3,744	3,213	505	26	66	3,678	1,012	1,143¾	270
Technological .....	52	7,128	5,516	1,535	77	7,109	19	782	793¾	122½
Kenny technique (technicians, nurses) .....	38	537	29	476	32	10	527	261	7,062	1,140
Kenny technique (physicians) .....	24	441	46	376	19	414	27	188	699	136½
Pharmaceutical .....	17	802	739	61	2	622	180	314	366½	49
Legal .....	17	1,172	1,142	30	0	1,125	47	121	361¼	62
Labor .....	20	1,742	1,622	101	19	1,629	113	311	244¾	40½
National defense .....	6	506	505	1	0	450	56	147	155	22
Totals .....	1,443	79,197	61,885	16,520	792	50,363	28,834	22,228	49,683¼	9,214½

**Audio-Visual Extension Service**—This department provides schools and organizations with audio-visual materials and educates them, insofar as it is possible, in their proper use. In addition to a film library (see Table VIII), the department furnishes an advisory service. This took the form, during the biennium, of 37 workshops drawing an attendance of 2,344 persons, who learned techniques in the use of audio-visual materials. A total of 318 visits were made to schools, libraries, etc., around the state. Growth in all phases of the film library operation is steady. The number of prints in the library has grown to such a point that the preview room has had to be taken over for storage space. Although 952 reels were previewed during 1953-54 by 238

TABLE VIII. AUDIO-VISUAL EXTENSION SERVICE

	1952-53	1953-54
<b>Minneapolis campus office</b>		
<b>Film library</b>		
Titles in library .....	2,183	2,443
New titles added .....	422	280
Prints in library .....	3,414	4,285
New prints added .....	177	611
Schools and organizations served .....	1,976	2,317
Film shipments .....	15,436	17,079
Bookings .....	29,695	37,005
Requests unable to fill .....	1,200	4,000
<b>Other services</b>		
Workshops .....	23	14
Total attendance at workshops .....	1,090	1,254
Visits to schools, libraries, etc. ....	169	149
<b>Duluth office</b>		
<b>Film library</b>		
Titles in library .....	280	279
Prints in library .....	280	281
New titles added .....	19	.....
Schools and organizations served .....	58	.....
Film shipments .....	414	.....
Bookings .....	672	537

organizations, this activity had been done away with because of the space problem. The number of prints in the library was increased during 1952-53 by 11 per cent over 1951-52 and again during 1953-54 by 26 per cent over 1952-53, an over-all gain of 40 per cent during the biennium. This is now the largest library of instructional films in Minnesota. Attempts were successfully made during this biennium to serve a wider variety of groups, among them business, industrial, civic, and fraternal organizations, as well as schools, colleges, and individuals.

The urgent need to bring the department together in one building and to provide space for film shipping and inspection and for previewing still exists.—ERWIN C. WELKE, *director*.

**State Organization Service**—The University, in establishing this department, recognized the great value to the state of the work done by the many voluntary associations in Minnesota. These associations promote the health, safety, welfare, and civic and cultural education of our citizens. It is estimated that there are over 400 state and around 10,000 local organizations of this character in Minnesota.

TABLE IX. STATE ORGANIZATION SERVICE

	1950-52	(1952-53)	(1953-54)	1952-54
SOS member organizations .....	28	(30)	(34)	34
Individual members of SOS organizations .....	11,686	(14,966)	(16,135)	16,135
Work orders from member organizations .....	590	(305)	(403)	708
Number of units processed .....	.....	(134,714)	(280,264)	414,978
<i>Minnesota World Affairs Center</i>				
WAC member organizations .....	9	(17)	(19)	19
Individual members of WAC organizations .....	3,325	(115,782)	(116,796)	116,796
Requests for program planning assistance .....	421	(298)	(326)	624
Distribution of pamphlets .....	16,793	(14,562)	(30,191)	44,753

The State Organization Service helps strengthen the programs of these groups by providing its member organizations with clerical and administrative services for which they pay the department. SOS does not seek, in any manner, to influence the content of the programs of these organizations.

The Service has shown a substantial growth in members and services in this biennium as shown in Table IX.

The Service administers the Minnesota World Affairs Center which is a regional center for education in world affairs composed of and directed by Minnesota organizations interested in this field. The majority of these organizations are members of the SOS.

Citizen interest in this vital subject is indicated in Table IX which shows a comparison between Center activities in this and the previous biennium.—  
WILLIAM C. ROGERS, *director*.

—JULIUS M. NOLTE, *dean*.

### SUMMER SESSION

Prior to World War II the only summer schools in the state competing with the Summer Session of the University of Minnesota were the teachers colleges of the surrounding territory.

The biennium of 1952-54 found the Summer Session faced with more than ordinary competition. In the summer of 1953 fifteen summer schools were listed in the state and 584 in the United States. In 1954 there were ten summer schools listed in the state and 406 in the United States. The decrease of five in the state and some 178 in the United States indicates that many of the smaller colleges found summer school an unprofitable venture. However, the competition is still formidable in nature. In spite of the rivalry for student enrollment, the Summer Session at the University of Minnesota maintained an enrollment of 6,904 for the first term and 4,703 for the second term, making a total of 11,607 for the Summer Session of 1953.

The enrollment was 7,433 for the first term and 5,250 for the second term, making a total of 12,683 for the Summer Session of 1954.

It is significant that both the Graduate School and the College of Education have maintained their enrollments so well with the competing forces already mentioned—especially since some smaller summer sessions have found it desirable to suspend operations.

The Summer Session at Minnesota ranks near the top both in enrollment and in quality and quantity of courses offered. There are over a thousand regular subjects of study listed and a number of special feature offerings.

**Curriculum**—Decreasing enrollments bring a declining income and steadily increasing salaries have forced upon us increased expense for instruction with the net result that we have been forced to cut the number of course offerings from well over 1,500 to approximately 1,000. Nevertheless, by careful planning coupled with the loyal cooperation of the deans and department heads of the various colleges represented in the Summer Session, we have been able to maintain a rich curriculum with occasional new course offerings injected as temporary special feature offerings. These special features include: the Workshop in High School Dramatics; the Family Life Workshop, which produced a unique report on the subject written by eminent authorities in the field; a survey course in economic problems of today; an outstanding program in the study of the language arts; a Workshop in Industrial Education; a Workshop dealing with Human Relations in the Field of Nursing and Public Health; special courses in journalism and efficient reading; a special course in New Testament Greek for the training of pretheological students.

In 1954, in addition to our standard curriculum, there was offered: a special course in communications and efficient reading; Teacher Education in Nursing; a course in the Improvement of Nursing Care; a film festival with standards of excellence for teachers' production techniques; an Institute on Government and Politics; a Modern Language Institute and a language "Auxilium" to suggest helps for language teachers; a new course in Italian; a new course at Itasca Park Forestry and Biological Station, sponsored by the Fund for the Advancement of Education, for the purpose of training high

school teachers of biology; and one sponsored by the National Science Foundation, for college teachers of biology.

In addition, the regular curriculum included such features as Intensive Russian, American Studies, Scandinavian Area Studies, the Tuttle Demonstration School (for the training of elementary teachers), the University High School (for the training of high school teachers), and the special course in business and engineering for naval officers at the Duluth Branch.

**The Graduate School**—Graduate study is first mentioned in connection with the Summer Session in a report of the Regents for the year 1895-96, when two students in astronomy worked on their Master's degrees. Graduate enrollment has grown steadily since that time.

In the summer of 1953 there were 4,003 students registered in the Graduate School, and in 1954 the enrollment mounted to 4,254.

The present enrollment in the Graduate School exceeds that of any other single unit of the Summer Session. It also exceeds the enrollment of many first-class colleges and universities today.

Because we are definitely committed to the maintenance of the highest standards of graduate work and, therefore, to the maintenance of a graduate faculty of more than ordinary qualifications, special attention needs to be given to the retention of the best of our faculty on the campus for purposes of graduate instruction during the Summer Session. This calls for a revision of the summer salary schedule as it applies to members of the faculty in the Graduate School.

**Recreation Program**—One of the outstanding features of the Summer Session at Minnesota is its recreation program. It is so outstanding that it has attracted attention in such publications as the *Manitoba Journal of Education* and other educational journals, and has been imitated by many other summer schools. It should be maintained as an attraction to prospective Summer Session students, and as an important part of the educational program of the Summer Session.

One of the outstanding features added recently to this program is the summer symphony concerts furnished free to the students of the Summer Session through the cooperation of Local 73 of the American Federation of Musicians and a grant from the Music Performance Trust Fund of the recording industry. Two performances with guest stars have been offered each term.

The University Theatre has also offered a series of dramatic productions each term embracing such plays as *Peer Gynt* and *School for Scandal* the first term and *Our Town* and *Ring Round the Moon* the second term in the summer of 1953; *The Twin Menaechmi*, *The Comedy of Errors* and *The Grass Harp* the first term and *The Curious Savage* and *An Evening of Dance* the second term in the summer of 1954.

The Department of Concerts and Lectures, in the face of a declining budget, has maintained a creditable weekly program of convocations, lectures, and musical concerts throughout both summers. The Andahazy Ballet Borealis Company was a feature of the 1954 season.

Newsreels and educational and feature films have been continued through the cooperation of the Film Society and the Audio-Visual Education Service.

**History of the Summer Session**—During this biennium the dean of the Summer Session has searched the reports of the presidents of the University, the Regents' minutes and the file of bulletins in the Archives of the University Library since 1877, and has prepared and filed a manuscript in the Archives dealing with the history of the Summer Session.

Any future reorganization of the Summer Session should be made in the light of such a historical background.—THOMAS A. H. TEETER, dean.

## INSTITUTE OF CHILD WELFARE

**Research**—In the biennium, 22 new research projects were undertaken. These, added to 18 projects continued from earlier years, made a total of 40 active projects. Twenty-three research projects were completed, of which 19 had been continued from earlier years.

**Nursery School, Kindergarten and University Village Play Center**—During the biennium the average enrollment of the Nursery School was 54 children per quarter. The Kindergarten enrollment averaged 26 per quarter in 1952-53, and 28 in 1953-54. Both schools were in session during the first summer term each year. The University Village Play Center was in session on a half-day plan with an average enrollment per quarter of 54 children in 1952-53, and 60 in 1953-54.

**Instruction and Enrollments**—For 1952-53 the total enrollment in Institute classes on the campus, both undergraduate and graduate, was 2,458, and for 1953-54, 2,247. Five students received Ph.D. degrees and 7 M.A. degrees with majors in Child Welfare.

**Parent Education**—The parent education program is summarized in the following table:

SUMMARY OF PARENT EDUCATION ACTIVITIES

	1952-53		1953-54	
	No. Groups	Enrollment	No. Groups	Enrollment
Extension courses				
Credit	9	145	8	163
Correspondence courses				
Credit	4	70	4	70
Noncredit	2	59	2	56
Study groups for parents	8	2,240	10	3,327
Lectures to parent groups	57		36	
TV Presentations (KSTP)	32		39	

**Publications**—During the biennium, 30 scientific and professional articles, 2 scientific monographs, and 7 popular or semiprofessional articles, exclusive of book reviews, were published.

**Other Activities**—In the biennium, members of the staff gave 327 lectures or addresses to various groups, societies, and organizations—both lay and professional. As in previous years, exhibits for organizations, radio and TV programs, and a newspaper feature going to many Minnesota weeklies were made available. Tape recordings of discussions on the guidance of children continued to be used by radio stations and study groups. Members of the staff served on the editorial and governing boards of scientific and professional societies, advised private and public agencies, and participated in national, state, and local programs for the betterment of children.—JOHN E. ANDERSON, *director*.

## BUREAU OF INSTITUTIONAL RESEARCH

**Organization and Administration**—*Committee on Institutional Research*—Leadership responsibilities for the Senate Committee on Institutional Research, the advisory committee for the Bureau of Institutional Research, were assumed by a new chairman, Professor Elio D. Monachesi, during the biennium. Professor Monachesi replaced Dean Russell M. Cooper, who had served as chairman since 1947. Dean Cooper was continued as a valuable committee member.

Other members on this broadly representative, all-University committee included: Gerald T. Evans (medicine), Ole Gisvold (pharmacy), Calvin Gruver (student), Ruth Harrington (nursing), Dale B. Harris (child welfare), Wilbur L. Layton (student counseling bureau), Ralph G. Nichols (agriculture), Anne Reick (student), Lloyd H. Reyerson (chemistry), Henry N. Smith (English, 1952-53), Robert E. Summers (student), R. Edward Summers (admissions and records) and Leonard B. Wheat (Duluth Branch). *Ex officio* members Cyril J. Hoyt, Robert J. Keller, and Malcolm M. Willey also continued their service during the biennium.

Five professorial members (Evans, Gisvold, Harrington, Nichols, and Wheat) and the three student members were new to the committee at the opening of the biennium. The faculty appointees succeeded John G. Darley (Graduate School), John E. King (Duluth Branch), Carl Nelson (business), Milo J. Peterson (agriculture) and Edward B. Stanford (library).

Neither the revision of the Senate By-Laws on May 15, 1952, nor the revision of the Senate Constitution on May 19, 1954, affected the organization, advisory function, or status of this committee, with respect to the Bureau of Institutional Research.

*Special Advisory Committee*—Also concerned with problems of organization and administration was a special advisory committee appointed by the President's Office in November 1953. Early in that year it became known that the director of the Bureau wished to accept a College of Education invitation to become a full-time member of its academic staff. A special six-man advisory committee was consequently appointed to review the status and activities of the Bureau, including its relationship to the Senate Committee on Institutional Research, and to recommend qualified candidates for the director's position.

Under the leadership of Dean Walter W. Cook, who served as chairman, this committee held frequent meetings during 1953-54. Meetings were held also with members of the Bureau staff, Vice President Malcolm M. Willey, and with four off-campus candidates who were invited to the campus for interviews.

Two recommendations of this special committee concerning staff were approved as the biennium ended: (1) the establishment of the position of assistant director and the promotion of Professor Stecklein to this position, and (2) the appointment of Professor John B. Morris, university examiner from the University of Mississippi, to the directorship. These two appointments are to become effective July 1, 1954.

*Bureau Offices and Personnel*—The Bureaus of Institutional and Educational Research, collectively identified as the Office of Educational Research and housed in Burton Hall since 1948, continued to be efficiently supervised. Also housed in these quarters were the activities of the Senate Committee on Institutional Relationships under the chairmanship of Professor Keller.

The biennium, as previously noted, brought to a close a 7-year appointment as a member of the professional staff of the Bureau for Professor Keller. Appointed originally in September 1947, he had served as associate director in cooperation with Professor Ruth E. Eckert, coordinator of educational research (1947-50) and as director from 1950 to June 1954.

The professorial staff of the Bureau was expanded during the biennium to include the appointments of John E. Stecklein and William Moonan, each of whom was named a research associate and assistant professor. Professor Stecklein succeeded Professor Robert B. Sutton and assumed his responsibilities for serving as Bureau examinations consultant. Professor Moonan was added as a half-time member of the Bureau staff, the other half being carried by the College of Education. Both men completed the Ph.D. degree during this biennium.

The remainder of the Bureau staff was fairly stable during this period, with Margaret G. Abernathy continuing as research fellow and Peter Rempel as research assistant. Mary Corcoran was added as research assistant in 1953. Shorter appointments as research fellow were held by Harriet Campbell, Richard Melton, and A. Lachlan Reed. Although there was no change in the position of office supervisor, the secretary's position was held by three different individuals. This latter position was reclassified to a senior secretaryship in 1953.

*Research Activities and Projects—Publications*—A major accomplishment of the Bureau was the publication of the report, *A University Looks at Its Program*. This book-length report summarizes 23 research studies conducted by the Bureau during the decade, 1942-52. It brings up to date the series of published biennial reports of the Bureau which had been interrupted in 1942 and includes selected studies which had not been published in the report of the Minnesota Commission on Higher Education, *Higher Education in Minnesota*. With the volume, *A University Looks at Its Program*, a new series, *Minnesota Studies in Higher Education*, has been established to include studies sponsored by the Bureau, as well as other research in higher education conducted at the University.

Manuscripts for publication in *A University Looks at Its Program* were largely completed or edited during the first year of this biennium. Twenty-six authors from 15 different departments in 8 different colleges or inde-

pendent departments participated in the writing of the 23 chapters in this book.

The studies reported were selected as examples of the educational research conducted by the Bureau during the decade, 1942-52. They were considered representative of a larger number of Bureau studies and were thought to have fairly wide usefulness to the University and other colleges and universities.

As part of its efforts to improve examination and appraisal practices at the University, the Bureau, in 1954, published the first two numbers in a series of quarterly examinations bulletins, *Bulletin on Classroom Testing*, Number 1, "Why Do We Test"; and Number 2, "Essay Tests: Why and How." A subcommittee of the Senate Committee on Education served as an advisory committee to the Bureau on this activity and on the organization of faculty seminars on examination practices.

The Freshman Form of the Aliferis Music Achievement Test series (test, test manual, and scoring template) was published in June 1954. This publication was a direct result of cooperative research and study between the Bureau and Professor James Aliferis, originator of the test. Professor Stecklein carried major responsibility for the development of norms, validation studies, item analyses, and preparation of the test manual. Financial support came largely from the Graduate School Research Fund, supplemented with funds from the Bureau budget.

Other research studies were also issued in bulletin form, largely in multi-lithed or mimeographed editions. Sometimes such bulletins were limited to tabular findings, though often a more complete report was issued in this manner. Reference to certain of these reports is made in the next sections.

*Continuation of Earlier Studies*—A number of Bureau-sponsored studies were continued from the previous biennium. Some resulted in publication in *A University Looks at Its Program* and others in a less permanent type of report. Among the earlier studies which had not been summarized for publication in the 1942-52 volume were the following: The faculty load studies; the study of course additions, modifications, and deletions; the follow-up study of recent Ph.D.'s; learning studies in professional education and elementary physiology courses; the study of outcomes in the English-communications area; local and ACE-sponsored national studies on the evaluation of general education; the survey of transfer students from Minnesota junior colleges; the 1952-53 study on the location of junior colleges; and the survey of the status and use of examinations in the basic sciences.

For certain of these studies detailed tabular and summary reports were prepared and issued. On other projects analyses have been completed but final reports are needed. Detailed statistical analyses have been made during the biennium on other projects. Oral reports of several studies have been made to various college groups and local and national professional groups.

Additional analyses have also been made in connection with certain studies reported previously or published in the 1942-52 volume. An illustration of this is the further analysis of 100 high- and 100 low-ranking teachers on the student teacher ratings project. Another continuation study involved further developments on the 1938 follow-up study of high school graduates in cooperation with the National Commission on Human Resources and Advanced Training.

*New Studies*—Initiated during this biennium were studies in three fields: (1) a survey of faculty characteristics; (2) three studies on the status and use of foreign language study at the University of Minnesota; and (3) initial developmental work on a three-fold study of the training, duties, and responsibilities of practical nurses in Minnesota—a cooperative project with the Minnesota Nurses Association.

**Other Staff Activities**—Bureau staff members were frequently called upon for consultation on individual research projects and for participation in seminars or conferences as resource persons, both on and off-campus. Members attended a number of meetings of national professional organizations. Papers were presented at several of these meetings.

**Cooperative Effort**—The activities and program of the Bureau are maintained by the staff in cooperation with individuals and groups from many

other departments and colleges. The extent of such cooperation can hardly be acknowledged in such a brief report. Some mention of assistance has been made in previous sections of this report. Without such assistance the Bureau could hardly have carried as extensive a program without considerable supplementation of its budget.

Fortunately, this kind of cooperation has been traditional at the University of Minnesota and part of the pattern of faculty relationships and service with the Bureau. Such joint efforts have helped to bring the University a reputation for pioneering in the self-study of educational problems. The reputation once earned through the efforts of the late Lotus D. Coffman, Melvin E. Haggerty, and T. Raymond McConnell has set a high example for successors in the Bureau and University staff to emulate. That some progress has been made during the biennium toward continuing this reputation has been the hope of the director and present staff.—ROBERT J. KELLER, *director*.

### DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

In general, the past biennium has been satisfying to the extent that we have been able to meet our debt service as well as initiate and complete many needed improvements and repairs to our physical plant. This has all been made possible because attendance at our football, basketball, and hockey games has shown a marked increase—an increase that has enhanced our income considerably.

In accordance with our plan the lobby in Williams Arena, which was destroyed by the snowslide, has been reconstructed. The parapet wall destroyed by the same slide has yet to be replaced. This will be done as soon as finances permit.

The long-range program of refacing the concrete and replacement of seats in the stadium proper has been completed and in addition to this we have replaced the old temporary bleachers at the open end of the stadium and on the terrace in front of Cooke Hall with new portable steel-type bleachers placed in the open end of the horseshoe. This portable section accommodates 6,800 people and is the largest portable bleacher section in any college stadium in the country. This improvement brings the spectators closer to the playing field than most seats in the bowl end of the stadium. We have not increased our seating capacity but we now have all good seats from which patrons can view the games.

The recreational plan permitting each student the use of the golf course, ice rink, and tennis courts has proved extremely popular this biennium. The addition of the 9-hole short course in place of the driving range has been a successful venture and has been used extensively.

The golf club house has been redecorated inside and out and the old furnishings replaced. We now feel that our golf course and club house are in excellent condition. Season play on both courses, which is indicative of the popularity of the fee plan and the extent of play, is as follows:

	Golf				Total
	9 Holes	18 Holes	Tennis	Skating	
1952-53 .....	5,709	11,167	7,395	15,293	39,564
1953-54 .....	4,500	10,986	6,905	14,948	37,339

The record for the intercollegiate teams is as follows:

	1952-53				1953-54		
	Won	Lost	Tied		Won	Lost	Tied
Baseball .....	19	9	.....	Baseball .....	17	14	.....
Basketball .....	14	8	.....	Basketball .....	17	5	.....
Boxing .....	1	4	.....	Football .....	4	4	1
Cross Country .....	0	4	.....	Golf .....	9	1	.....
Football .....	4	3	2	Gymnastics .....	6	4	.....
Golf .....	9	0	.....	Hockey .....	22	5	1
Gymnastics .....	8	0	.....	Swimming .....	0	6	.....
Hockey .....	22	5	1	Tennis .....	2	4	.....
Swimming .....	0	6	.....	Track .....	2	5	.....
Tennis .....	2	4	.....	Wrestling .....	8	6	1
Track .....	2	5	.....				
Wrestling .....	8	6	1				

TABLE I. STATISTICS ON INTERCOLLEGIATE ATHLETICS, 1952-54

Activities and Head Coaches	Total No. Games		No. Confer- ence Games		No. Non- Conference Games		Total No. Receiv- ing Athletic In- struction Includ- ing Freshmen		No. Varsity Candidates		No. Varsity Cand. Elig. for Intercol. Competition		Number Competing		No. "M" Awards		No. Freshman Candidates		No. Freshman Numerals Awarded		No. Games Won		No. Games Lost		Tied No. Games	
	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54	52- 53	53- 54
Baseball Siebert	28	31	12	15	16	16	100	138	43	41	27	29	23	22	14	15	57	97	19	19	19	17	9	14	0	0
Basketball Cowles	22	22	18	14	4	8	100	120	18	26	16	19	16	18	13	11	82	94	24	20	14	17	8	5	0	0
Boxing Wolinski	5		4		1		27		19		13		13		10		8		6		1		4		0	
Cross Country Kelly	4		2		2		9		9		5		5		3		0		0		0		4		0	
Football Fesler	9	9	6	7	3	2	131	125	58	49	55	50	46	40	40	26	73	76	50	54	4	4	3	4	2	1
Golf Bolstad	9	10	3	5	6	5	35	44	21	24	16	12	10	9	8	7	14	20	8	13	9	9	0	1	0	0
Gymnastics Piper	8	10	8	7	0	3	30	30	11	16	7	10	7	8	6	6	19	14	5	7	8	6	0	4	0	0
Hockey Mariucci	27	28	8	20	19	8	69	72	26	46	17	22	16	18	11	16	43	26	15	18	22	22	5	5	0	1
Swimming Thorpe	9	6	6	6	3	0	41	40	22	23	18	16	13	12	11	9	19	17	13	12	3	0	6	6	0	0
Tennis Brain	5	6	3	4	2	2	39	44	19	23	9	12	6	6	6	6	20	21	8	6	1	2	4	4	0	0
Track Kelly	7	7	5	5	2	2	70	38	32	23	22	22	14	18	10	12	38	15	18	12	1	2	6	5	0	0
Wrestling Johnson	8	15	3	6	5	9	27	23	17	16	14	15	10	14	9	10	10	17	6	9	6	8	2	6	0	1
Totals	141	144	78	89	63	55	678	674	295	287	219	207	179	165	141	118	383	397	172	170	88	87	51	54	2	3

Note: No participation in Cross Country in 1953-54. Boxing discontinued in 1953-54.

In the past two years hockey has increased in popularity, and spectator interest has reached an all-time high. We are now planning added seating by building a balcony on the north side which would increase our seating capacity to approximately 8,000. This will be consummated as soon as finances permit.

There have been several changes in personnel in the department during this biennium. Wesley Fesler, after serving 3 years as football coach, resigned to accept a business position. Lyle Clark, line coach, resigned to accept a position at Ohio State University. Dick Fisher, backfield coach, resigned to accept a position with local industry. Bud Svendsen resigned from the department to accept a position at Northwestern University. John Kulbitski resigned to accept a position at Western Washington College.

Murray Warmath was selected as head football coach and chose as his assistants Denver Crawford, line coach; Billy Jack Murphy, backfield coach; and Bill Hildebrand and Jim Camp, assistants.

Frederick Chapman, formerly state supervisor of Patients' Activities Program for the State Hospitals of Minnesota, was added to the staff as assistant professor in recreation. This appointment was necessary due to the fact that undergraduate and graduate enrollment in recreation has increased from 85 to 112.

Walter Ray Smith, head of the Intramural Department, retired after 32 years of loyal and distinguished service. The Senate Committee on Intercollegiate Athletics voted Mr. Smith an honorary "M" in recognition of his outstanding service to the Department. Clarence Mueller, assistant, has been selected to succeed Mr. Smith.

On May 19, 1953, the Senate Committee on Intercollegiate Athletics, after study and discussion, voted to discontinue intercollegiate boxing at the University.

We have continued the policy of promoting a friendly feeling and extending clinical service to the high schools and their coaches in the state. Clinics have been held by our staff in baseball, basketball, football, golf, gymnastics, hockey, swimming, tennis, track and field, and wrestling. This staff contribution constitutes a lasting service and creates good will for the University.

Each year the department conducts a number of special events in addition to the regular scheduled activities. Some are conducted by the department; others are carried on in cooperation with the state or Twin Cities schools. A list of these special events follows:

#### 1952-53

1. Intersectional ice hockey series with Ft. William Canadiens, St. Boniface Hockey Club, Harvard University, Dartmouth College.
2. State high school championship meets in basketball, golf, tennis, track, wrestling, swimming, gymnastics.
3. Basketball tournaments: Twin Cities, District 17, District 18, Region 4, Region 5.
4. Hockey tournaments: Region 2, private schools.
5. Gymnastics meets: Northwest Gymnastics Society, Midwest Open, Swedish National and Olympic.
6. Track meets: Metropolitan, District 18, Minneapolis High Schools, Region V.
7. State high school meets: track, swimming, golf.
8. Golf meets: District 17, Region 5, Twin Cities high schools.
9. Tennis Championships: Region V.
10. State high school coaches clinics.
11. American Red Cross life saving classes.

#### 1953-54

1. Intersectional ice hockey series with Ft. William Canadiens, St. Boniface Hockey Club, University of Toronto.
2. Hockey Championships: Region 2.
3. State high school tournaments in basketball, track, wrestling, swimming, tennis, golf.
4. Track meets: Northwest Open, Metropolitan.
5. Basketball tournaments: Twin Cities, District 17, District 18, Region 4, Region 5, Minneapolis.
6. Northwest Gymnastics Meet.
7. NCAA Swimming Meet.
8. American Red Cross life saving classes.

**Physical Education**—The physical education area of the Department has maintained a high standard in all phases of its work during the biennium.

Although the enrollment in the various teacher education curricula showed a slight downward trend during 1952-53, it followed the pattern of the University in general and started an upward swing during the past year. This was true in the physical education and the recreation leadership groups. The same general trend was followed in the activity courses of the required and elective program open to the general student body.

A concerted effort was made to acquaint the freshmen of the various colleges with the opportunities for instruction and participation in the recreational and developmental physical activities. A motion picture depicting the facilities and the activity program promoted by the Department was developed and shown to the freshmen during Welcome Week. A booklet describing the various courses was published and distributed to the counselors. A better understanding of the opportunities offered and the objectives sought was achieved with a resulting increase in enrollment in these activity courses.

One of the most valuable services offered by this Department is the program of activities for the handicapped, usually called the Adapted Program. In cooperation with the University Health Service, the Mental Hygiene Division, and the counselors in the various colleges, Clarence Osell, head of this area, directs students in activities which are adapted to their needs. This program is conducted in a special gymnasium in the Stadium. During the past two years more than 200 students have been given instruction and guidance in sports and other developmental activities suited to their individual needs and capacities.

In the undergraduate teacher education program the downward trend in enrollment was checked and started upward. This was reflected in the general enrollment although the graduating group contained only 16 in 1954 as compared to 21 in the previous year. All of the graduates who were available for employment were placed in both years. However, it is discouraging to note that most of the graduates are required to enter military service and even after the completion of this service many choose not to enter the teaching field.

On the graduate level the swing likewise turned upward during the past year. During the spring quarter of 1954, the following numbers were registered for advanced degrees: M.A.—5; M.Ed.—14; Ph.D.—4. Of the 45 M.Ed. degrees granted by the College of Education during the past year, 14 (31 per cent) were obtained with a major in physical education and 11 (24 per cent) with a major in recreation leadership. One Ph.D. with major emphasis in physical education was granted in 1953.

The recreational leadership training program is gradually earning a favorable reputation. It is meeting a real need in the state and nation. During the 1953-54 school year 110 students (95 undergraduates and 15 graduates) were majoring in this field. Approximately half of these were women. Thirty-five Bachelor's degrees and 10 Master's degrees were granted during this year. Five of these were in hospital recreation.

The recreation leadership division provided advice and consultant service to numerous cities and school districts. It also cooperated in the sponsorship of the Great Lakes Recreation Conference, which was attended by 300 persons from five states, and co-sponsored, with the Center for Continuation Study, the Second University of Minnesota Institute on Hospital Recreation, which attracted some 90 people from 20 states.

The broad program of recreational activities conducted by the intramural division was popular with many but was not available to a larger number of students because of the necessity of scheduling the activities in the late evening and at night. Most of the sports facilities are used by varsity squads in the afternoon and are not available for general student use at this time. That large group of students living at home and consequently away from the campus in the late afternoon and evening hours is to a great extent denied the opportunity of participating in recreative physical activity programs. The regular program of class activities throughout the day would be more appropriate for this group. It is unfortunate that so many men students have no contact with the recreational physical activities of the institution. A two-year requirement of physical education for all students would be desirable from a health and recreational standpoint.

TABLE II. INTRAMURAL PARTICIPATION\*

Activity	Number of Men Participating 1952-53	Number of Men Participating 1953-54
Badminton	21	.....
Baseball	234	288
Basketball	1,726	2,052
Bowling	1,408	1,950
Boxing	96	.....
Fencing	34	42
Golf	81	119
Handball	26	92
Hockey	196	256
Horseshoes	21	33
Rifle	60	65
Softball	1,026	1,205
Squash	14	24
Swimming	94	104
Table tennis	.....	180
Tennis	159	177
Touchball	637	757
Track	108	95
Volleyball	192	288
Wrestling	.....	79
Total number participants	6,133	7,806

\* These figures include organized league and tournament play only. A large number of students participate in non-scheduled "free play" activities.

The intramural program does, however, meet the recreational needs of a large number of men and the facilities are used almost to capacity during the evening hours. The extent and kind of participation in intramural activities is shown in Table II.—ISAAC J. ARMSTRONG, *director*.

## DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

**Enrollment**—*The College Instructional Program*—In comparison with the previous biennium, some decrease has been evident during this biennium from all standpoints: average individuals per quarter, average total registrations per year, and average total participations per year. The greatest decrease appeared in the average total participations for the year which are down 4 per cent. The basic reason for the reduction of enrollment is the reduction of course offerings necessitated by retrenchment. The actual per cent of reduction is not as significant as the effect upon student attitude and the obstacle to meeting needs.

*The Recreational Program*—The total participations in the departmental recreational program were 18 per cent higher than those in previous years. There was also a substantial increase in the number of individuals participating in open recreation, which includes opportunities that are suited to transitory and non-organized participation. These facts have significance because the shift of schedule to a later time of day necessitated by the change in the University schedule from on-the-hour to the half-hour time raises an obstacle to participation for commuters and the evening workers.

*The Professional Undergraduate Program*—Although the total enrollment has remained relatively stable in the undergraduate professional program during the last two bienniums, there is actually a gain in majors and minors because the 9-credit endorsement has been abandoned by the State Department of Education and therefore we no longer have students in that category.

A fact that augurs well for the future is the large increase in freshmen women in 1953-54.

*The Professional Graduate Program*—The number of advanced students is steadily increasing despite the relative newness of the departmental graduate program. The total number for 1950-52, including Summer Session, was 59 while that for 1952-54 was 73. One unfavorable factor is at work however: the great shortage of women physical education teachers; therefore in order

to secure a good position, teachers do not need to take advanced work; our problem is then one of recruitment. On the other hand, a favorable factor is also at work: an active and alert departmental graduate staff of four who are deeply interested in teaching in the graduate program and are also research-minded and actively engaged in original work.

**Major Accomplishments—Staff Studies**—One study has been accepted for publication in October. Two studies have been submitted for publication. Four studies are under way. These staff studies are carried on in addition to the regular heavy work schedule.

**Staff Services**—From a careful record of quarterly "Load Reports," the staff of the Department has given a total of 921½ hours during the biennium in services at the national, district, state, and local levels; these services, also, have been rendered in addition to the regular University load.

**Public Relations Projects**—The staff, major students, and alumnae have all been active in public relations projects each year of the biennium. These projects have been concerned with the advertising of the \$250 scholarship and the selection of candidates for it, stimulation of professional students to attend professional conferences, social functions for all students in the Department, for the alumnae, and for the parents of students as well as promotion of Department institutes and offerings among various professional organizations and in adjoining states. The chief single public relations project is undoubtedly the Annual Institute. A total of 684 from Minnesota and adjoining states, including University students and faculty, attended the two institutes given during the biennium.

**Curricular Additions**—A new graduate course, "Curricular Trends in the Professional Preparation of Teachers of Physical Education," has been added to the advanced offering of the Department.

**Research Laboratory**—Space has now been set aside for a research laboratory and some testing has been carried on there during the past quarter. A start has been made on providing essential equipment.

**Department Programs**—Each of the department programs—the Required College Instructional Program, the Department Recreational Program, the Undergraduate and Graduate Professional Programs—has progressed in respect to the analysis of problems in the program (e.g., registering for activity in relation to activity health ratings and background of experience, guidance procedures for students, evaluation of program offering in relation to standards set up by consensus or through such sources as AACTE).

**Problems and Plans**—Both the Required College Instructional Program and the Undergraduate Professional Program are handicapped by inadequate opportunity for meeting specialized interests and needs. The addition of staff as indicated in the biennial legislative request is needed to overcome these handicaps.

Plans are being made to clarify requirements, standards, and opportunities in each program through some sort of handbook.

An analysis of student leadership in the various departmental programs is under way. Next year, the organized student groups will be asked to cooperate in the study.

Some method of recruitment of professional students at both undergraduate and graduate levels must be developed. The University policy on recruitment must of course be observed; however, the need in the field is crucial and staff interest and ability are high.

The stage is set for real progress in the development of a core program in the professional preparation of teachers of physical education.

The reorganization of the program in School Health Education has been conducted in the light of findings of recent studies; currently the physical educator is typically the central person in the giving of direct health instruction. Discussions with the personnel of other departments will be undertaken during the coming year.

A plan of continuous and unified directed teaching experience throughout the four-year major in physical education is being considered.

A plan of joint inter-institutional research is being studied. Envisaged as a first step is joint planning in relation to kinethesis in children.—**GERTRUDE M. BAKER**, director.

## MINNESOTA GEOLOGICAL SURVEY

The biennium has shown a marked increase both in the activity of the Survey and in the demands for the varied service it has been able to give to agencies of the government, industry, and individuals. All of this has been accomplished with a somewhat reduced budget and in the face of continued inflation in cost of field work, supplies, and printing.

The aeromagnetic work which was carried on during the previous biennium in cooperation with the U. S. Geological Survey was continued, but with a reduced contribution by the Minnesota Geological Survey. Our financial obligation was completed by the payment of \$6,500 in the latter part of 1952. Because of our previous financial cooperation the U. S. Geological Survey completed a large area along the western border of the state without requiring any financial contribution from Minnesota. The Survey continues to compile the necessary geological information for the published maps. Beginning July 1, 1954, a large program of fundamental research on the results of the magnetic mapping will be carried out by the geophysicists of the U. S. Geological Survey with the cooperation of the director of the Minnesota Geological Survey.

The major projects of geologic work have been carried on according to a general long term program.

Professor Frank F. Grout, who retired in 1948, has returned to Minneapolis after giving courses at Florida, Columbia, Arizona, and California Institute of Technology. During the period from July 1, 1953 to June 1, 1954, he devoted practically all of his time to completing Bulletin 36, "Geology of the Cuyuna District, Minnesota." The Survey is deeply indebted to Professor Grout and to J. F. Wolff, Sr., who cooperated with him in preparing the Bulletin which was transmitted to the University of Minnesota Press in June 1954.

The outstanding event during the biennium was the publication in June 1954 of Bulletin 37, "Minnesota's Rocks and Waters," a popular description of the geology of the state. This incorporates in a general way the results of the work of the Minnesota Geological Survey since its establishment in 1872. It is hoped this will be particularly useful to science teachers in the public schools throughout the state.

A Mineral Resources Map of Minnesota was also compiled and published during the biennium.

Professor Herbert Wright, Jr., and his students have continued their revision of the glacial geology of Minnesota. Close cooperation is maintained with the Department of Soils of the Institute of Agriculture. The interest in, and value of this work was shown when on May 29 and 30 over 75 glacial geologists and soil scientists from as far away as Michigan, Ohio, Nebraska, Colorado, as well as states adjacent to Minnesota, came to Minneapolis for a field trip to inspect the glacial geology of central Minnesota.

As part of this program Allan F. Schneider has carried on detailed mapping of Randall area on the west side of the Mississippi river and is presently completing laboratory work and writing of a thesis on the area to be presented as part of the requirements for the Ph.D. degree.

Leonard Weis is completing a similar project on the Brainerd area which has been delayed somewhat by teaching duties at Coe College, but the thesis will be presented in the fall of 1954.

James W. Dalrymple is likewise completing a thesis on the structure and petrology of the Soudan area. Professor George M. Schwartz has carried on a parallel investigation of the origin of the ore bodies of the Soudan Mine so that better inferences can be made of additional areas worthy of exploration where the Soudan iron formation is known or found to exist.

David White completed his work on the stratigraphy and structure of the Mesabi Range, Minnesota, and the result will appear as Bulletin 38 in July 1954. This work, it is reported, has already helped in finding additional ore and is a notable contribution to the understanding of this most valuable of all of the iron ore districts of the world.

Professor J. Merle Harris of the General College assisted by Charles Jahren of Austin Junior College carried on detailed mapping of the area in which copper-nickel sulphides have been discovered in St. Louis and Lake counties. This furnished valuable details necessary in an understanding of

this occurrence. One of the large mining companies has four diamond drills operating in the area, a good indication of the importance of this occurrence on which scientific work has been done by the Survey.

Professor Charles Bell continued his work on the Paleozoic stratigraphy of Minnesota until he left in 1953 to accept a position at the University of Texas. Publication of the work of Professor Bell and his students continues in the scientific magazines and eventually someone will be designated to carry on the revision of the Paleozoic stratigraphy of Minnesota.

Professor Samuel S. Goldich is supervising a restudy of the Duluth gabbro intrusion, but is, at his request, only reimbursed for actual expenses. Richard S. Taylor and assistant spent the summer of 1953 in detailed mapping of the rocks of part of the Duluth area and will continue during the field season of 1954.

During the biennium a great amount of work has been done on the files, rock collections, and well samples so that the permanent records are now in better shape than at any time since Professor Winchell completed his work in 1900. Much remains to be done and this work will be continued until all records are in satisfactory form.

The director of the Minnesota Geological Survey is ex officio a member of the State Mapping Advisory Board. The director has been chairman since the Board was established by the Legislature in 1949. He has also acted as technical adviser to the commissioner of Iron Range Resources and Rehabilitation on a program of topographic mapping which has actually outgrown the direct Legislature program. As a result of this work Minnesota now has probably the third largest topographic mapping program of any state, whereas previous to 1949 the state had no program.

**Publications**—The following publication was issued during the biennium: George M. Schwartz and George A. Thiel, *Minnesota's Rocks and Waters, a Geological Story*, Minnesota Geological Survey Bulletin 37, 1954.

Papers based on the work of the Survey but published in scientific journals are as follows:

George M. Schwartz. "Geologic setting of the copper-nickel prospect in the Duluth Gabbro near Ely, Minnesota (with D. M. Davidson). *Mining Engineering*. Vol. 4, pp. 699-702. July 1952; "Correlation of aeromagnetism and rock formations in Minnesota." Abstracts of Technical Papers. American Institute of Mining 1953 Annual meeting. February 1953; "Regional setting of the Cuyuna Range." In Mining Symposium, Geology of the Cuyuna Range. University of Minnesota Center for Continuation Study. April 5, 1953; "Preliminary report on replacement and rock alteration in the Soudan iron ore deposit, Minnesota" (with Ian L. Reid). *Abstracts of Technical Papers*. Amer. Inst. Min. & Met. Engineers. 1954. Pp. 18-19.

George A. Thiel. "Geologic features of the Minneapolis-St. Paul metropolitan area." *Earth Science Digest*. pp. 7-12. July 1952; "Drill holes for water and what they reveal." University of Minnesota Drilling Symposium Report. Hibbing. pp. 24-27. April 1952; "The Iron Ores of Southeastern Minnesota." *Earth Science Digest*, 6: 47-51, September 1953; "Geology of John Latsch State Park." *Conservation Volunteer*, 16: No. 95. pp. 47-48. 1953.

Herbert E. Wright, Jr. "Cary and Mankato glaciation in central and northeastern Minnesota." Geological Society of America, *Bull.*, Vol. 63, p. 1316, December 1952 (Abstract); "Interbedded Cary drifts near Minneapolis, Minnesota." *Jour. Geology*, vol. 61, pp. 465-471, 1953. "Guidebook for the Fifth Annual Field Trip of the Friends of the Pleistocene (Midwest), Minnesota." 1954. Mimeographed, 35 pages.

James H. Zumberge. "Geology of Itasca State Park." *Conservation Volunteer*, 15: No. 90. pp. 42-44. 1952.

List of Aeromagnetic Maps of Minnesota published by the U. S. Geological Survey as a part of the Cooperative Program:

Geophysical Investigations Map No.:

1. Southern part of Beltrami County. 1949.
2. Northern part of Cass County. 1949.
3. Central part of Cass County. 1949.

4. Southern part of Cass County. 1949.
5. Northern part of Crow Wing and part of Cass Counties. 1949.
6. Southern part of Crow Wing County. 1949.
7. Part of Hubbard County. 1949.
8. Western part of Itasca County. 1949.
9. Eastern part of Morrison County. 1949.
10. Western part of Morrison County. 1949.
11. Todd County. 1949.
12. Wadena County and part of Hubbard County. 1949.
46. Parts of Clearwater, Polk, and Red Lake Counties. 1951.
47. Parts of Clearwater and Mahnomen Counties. 1951.
48. Part of Becker County. 1951.
49. Northern part of Otter Tail County. 1951.
50. Southern part of Otter Tail County. 1951.
51. Douglas County and part of Grant County. 1951.
91. Part of Southeastern St. Louis County. 1952.
92. East Central St. Louis County. 1952.
93. Part of Northeastern St. Louis County. 1952.
94. Part of Southwestern St. Louis County. 1952.
95. West-Central St. Louis County. 1952.
96. Part of Northwestern St. Louis County. 1952.
97. Northeastern Itasca County and Southeastern Koochiching County. 1953.
98. East Central Itasca County. 1953.
99. Southeastern Itasca County. 1953.
100. Northern Aitkin County. 1953.
101. Southern Aitkin and Northern Mille Lacs Counties. 1953.
102. Parts of Kanabec, Mille Lacs and Pine Counties. 1953.

—GEORGE M. SCHWARTZ, *director*.

### THE MINNESOTA ALUMNI ASSOCIATION—DEPARTMENT OF ALUMNI RELATIONS

Alumni work continues to grow and gain momentum. The Minnesota Alumni Association has gained in character and status; its organizational structure has been changed to permit constituent groups to affiliate; additional clubs have been organized both in and outstate; the magazine has continued to improve; and records and mailing operations function with improved efficiency and dispatch. The program is achieving increased alumni acceptance, and an increased understanding and support of the University, its needs and problems.

**Officers**—The officers for 1952-53 were president, Victor A. Christgau, '24 Ag; first vice president, Theodore Christianson, '37 LLB; second vice president, Mrs. Harold Stemsrud, '35 Ed; secretary, Francis "Pug" Lund, 1931-35; and treasurer, Lawrence E. Johnson, '29 ArchE. For 1953-54, president, Theodore Christianson, '37 LLB; first vice president, Francis "Pug" Lund, 1931-35; second vice president, Mrs. Wright W. Brooks, '36 BA; secretary, Dr. Theodore R. Fritsche, '31 Med; and treasurer, Lawrence E. Johnson, '29 ArchE.

**Office**—During the biennium the staff has remained constant with a total of 18 full-time employees and 3 part-time workers.

**Budget**—Total income for 1952-53 from all sources was \$93,244.90 and for 1953-54, \$94,261.22.

**Field Services**—Vincent Reis, field representative, resigned as of September 30, 1952. Ray Chisholm, formerly an instructor in physical education at the University, was named to succeed him. During the biennium, 23 new alumni clubs were formed in the state of Minnesota bringing the total of intrastate clubs to 54. These clubs averaged 3.25 meetings a year each. Thirteen new clubs were formed outstate for a total of 42 clubs. These clubs averaged 1.5 meetings each year. In addition, alumni meetings and contacts were made in an average of 59 communities each year.

Faculty members spoke to alumni clubs on 129 occasions, and 278 "packaged" programs were requested (films, tapes, slides, etc.). Total attendance for the biennium at alumni club meetings, including guests, was 25,820 persons.

University of Minnesota Week is now a part of the alumni club program. Twenty-five alumni clubs held meetings in 1953 and 22 clubs in 1954.

President Morrill visited the Worthington and Mountain Lake alumni clubs in November 1952 and International Falls, Baudette, and Crookston in December 1953.

**Minnesota Alumni Scholarships**—The 22 alumni district committees screened 419 applications in 1953, awarding 46 scholarships—23 to boys and 23 to girls. In 1954, the district committees screened 455 applications, awarding 38 scholarships—19 each being awarded to boys and girls. Funds received from the Greater University Fund in 1953 amounted to \$13,200 and in 1954, \$12,583.

**Membership**—During the biennium membership showed a decrease from the 1951-52 figures. Average membership for 1953 was 10,957; for 1954, 11,162. There is a distinct trend from annual to five-year, paid-in-advance memberships. Started in 1950 when 265 paid-in-advance members were obtained, the number has increased to 777 in 1952 and to 1,385 in 1954.

The Life Membership Fund in 1953 was \$101,774.59 and for 1954, \$102,220.27. The renewal rate showed a 39 per cent return in 1953 and 46 per cent in 1954. The renewal rate has shown a steady increase during the last five years. Free membership was continued during the biennium for military personnel, with an average of 350 such members. A Life Membership, Time Payment Plan was inaugurated in October 1953; 17 members were obtained by the end of the fiscal year, and 47 in 1954.

**Records**—In 1953 a new policy was adopted under which only graduates and active non-graduates of the University are kept in the master records file. Begun in 1953, the job was completed in 1954, reducing the number of names on the master file to 150,000. The non-graduate file was set up as a permanent reference file. A plan of mailing to alumni who were in the records file, even though there was no check on the correctness of their addresses, was started. As a result, a 60 per cent return of these people to the active records and mailing file was achieved.

**Mailing**—During the biennium the mailing division has averaged 436,171 pieces of mail per year, at a postage cost of \$6,031.11. Two new pieces of equipment were added, an inserting and mailing machine and an additional keyboard graphotype. New names added to the mailing list averaged 4,461 for each of the two years. The growth and the number of names of alumni now on addressograph plates is as follows:

Year	Membership	Record Plates	Total
1951 .....	12,769	40,571	53,340
1952 .....	11,696	44,729	56,425
1953 .....	11,478	51,617	63,075
1954 .....	11,019	56,395	67,661

**Special Events**—An official University of Minnesota ring became a reality in 1952. The design is richly symbolic with the left side featuring Northrop Auditorium, the North Star State, wheat heads, and the moccasin flower. The University seal, a "golden gopher," and the official Minnesota "M" are main elements on the right side. The top encircles a maroon faceted synthetic garnet. First rings were ready by Christmas 1952. Since then a steady demand has indicated acceptance by Minnesota alumni and gives every indication of becoming a Minnesota tradition.

A record of Minnesota songs was published in September of 1953, the first official record in the history of the University. The record (an LP) consists of eleven Minnesota songs. One side contains all the old favorite and traditional Minnesota songs; side two presents the three most recent Minnesota songs in concert arrangement. The record was made possible through the help of the concert band and chorus. Acceptance of the record was immediate, the first supply being sold out at once.

**Homecoming**—The Alumni Office, during both years of the biennium, worked in close cooperation with the student homecoming committees. Names were furnished for judges of the homecoming parade, house decorations, queen contest, and bonfire and pepfest. The Association furnished trophies for the Homecoming Queen, Alumni King, and four queen attendants; assisted in the selection of the Alumni King (Herb Benson of Orlando, Florida in 1952 and Grant "Spike" Johnson of Detroit Lakes, Minnesota in 1953). In both years the Alumni King and Homecoming Queen were presented to the football crowd at half time. Tickets were sold for the homecoming dance, and free reserved tickets to the Varsity Show were sent to alumni leaders. The traditional alumni pre-game buffet was held both years, with a steady gain in popularity.

**Alumni Reunion Celebration**—The Fiftieth Annual Reunion celebration was held May 21-22, 1953, with some 1,800 alumni in attendance. Reunions were held by the classes of 1903, 1908, 1913, 1918, 1928, and 1938. The traditional banquet on the last day was attended by 503 alumni. Outstanding Achievement Awards went to 7 alumni on that occasion. Elmo C. Wilson, '28 BA, '36 MA, acted as toastmaster and John F. McGovern was the main speaker.

Some 2,000 alumni returned to enjoy the 1954 reunion held May 13-14-15, 1954. The classes of 1904, 1909, 1914, 1919, 1929, and 1939, held reunions. A general alumni luncheon was held for "early grads" with Charles H. Chalmers acting as emcee. The dinner on the last day attracted 478 alumni. Outstanding Achievement Awards went to 7 alumni. Bradshaw Mintener, '29 LLB, acted as toastmaster and Fred L. Hovde, '29 BChemEng, president, Purdue University, made the main address.

**Christmas Reunions**—The fourth and fifth annual Christmas reunions were held December 30, 1952 and December 29, 1953. Attendance was 100 in 1952 and 125 in 1953.

The Alumni Office assisted in the promotion of the annual Dads Day Luncheon, November 8, 1952 and October 31, 1953. The Office also assisted in the promotion of the annual dinner and meeting of the Institute of Technology Alumni Association, November 18, 1952 and November 16, 1953. It sponsored a St. Paul Quarterback Club held both years at the Minnesota Club each Monday noon during the football season. Alumni meetings were held both years also in conjunction with football trips.

The Office assisted in the publication of an alumni directory of the Institute of Technology. It assumed charge of arrangements for a reunion of the 1927 football team and also players under Dr. Clarence Spears, October 17, 1952. The Office also assisted in the 50th Anniversary of the Little Brown Jug.

The first official constituent alumni group came into being when the Institute of Technology Alumni Association requested and was granted official status May 15, 1954.

*Minnesota, Voice of the Alumni*, the MAA's official publication, was published on schedule during the biennium. In 1953, the magazine was enlarged to 36 pages, and a Krome Kote cover added. The 1953 format featured a series of articles on "Americanism," in 1954, on "Know Your University."

**Board of Directors**—The Board had 6 meetings and the Executive Committee 16 meetings during the biennium.

**Alumni Committees**—The Association has standing committees on investment, honors, and legislative matters. Also, alumni representatives on Senate committees on athletics, student affairs, and military affairs and on the Union Board of Governors (both Minneapolis and St. Paul campuses). Special committees were appointed in 1954 on membership and editorial matters.

**Plans**—If the work of the Association is to advance, certain changes are essential. First, there is a need to add an assistant director to the staff. At the present time the Alumni Office is unable to take on or expand services. However, the next step forward is the organization of constituent alumni groups, a regional and district club structure (with representatives on the Board), the alumni magazine to be mailed to all alumni once a year, and a strong student-alumni relations program. There is a need to change the class reunion plan.

Finally, because the Alumni Office is now located in two buildings, making coordination and communication difficult, there is a need for new alumni office quarters.—EDWIN L. HAISLET, *director*.

### GREATER UNIVERSITY FUND

During the biennium, the Greater University Fund continued its successful growth pattern. The noticeable increase in terms of dollars resulted from the "Special Project Program" phase of the Fund's annual campaign efforts. The annual campaigns of the Fund operate on the calendar year basis.

During the 1952 campaign, 12 special projects were singled out for individual promotion. There were 65 restricted type projects within the University that individuals could contribute directly to, through the Greater University Fund. During the 1952 campaign, 3,884 persons, groups, or organizations contributed \$168,650 to the University. A major portion of these gifts was for special projects or restricted purposes.

During the 1953 campaign, 17 special projects were singled out for emphasis, and a total of 92 projects were available to attract potential contributors. The 1953 campaign reached a total of \$216,283 from 3,836 individuals, groups, and organizations.

To single out the reason for the extensive growth in dollar total during the past two years would mean taking a close look at the personal type solicitation carried out in conjunction with the special project program.

For example, the Grasslands Research project of the Institute of Agriculture represents a study being carried out at the Rosemount Research Center relative to grazing problems of beef cattle. Interested individuals both within and outside the University collaborated in contacting interested agricultural type industry for contributions to this project. It has been the growth of this type of contact for special projects that has resulted in the increased contributions.

Another example of personal solicitation for a special project is the Henry L. Williams Memorial Scholarship Fund. Roy Larsen, president of Twin City Federal Savings and Loan Association, has acted as campaign chairman during the past two years for this special project. Mr. Larsen, with the help of the Greater University Fund office, has used a large and successful organization of prominent Twin Cities businessmen very effectively in contacting the potential contributors. Each man, in cooperation with the Greater University Fund office, has received specific assignments, including the individuals that were contacted the previous year, and additional individuals deemed advisable for this person to contact.

Personal contacts of this kind, during the past biennium, have assured the success of many of the special projects. The secondary reason for the increase in over-all contributions has been due to the expansion of projects where the Greater University Fund has acted as a channel for a contribution to the University. Cooperation by departments and individuals of the University has been most encouraging. For example, special funds have been established in almost every department of the Institute of Agriculture to facilitate individuals making contributions to research, travel, equipment, etc. A particular individual or company desirous of making a contribution to a particular department is encouraged by the prompt and effective handling of their gift to be used as the department desires.

Colleges and universities throughout the country have experienced increases in the past two years in the number of scholarships available to needy and worthy students. The University of Minnesota, also, has experienced this increase in the number of scholarships. In part, the promotional assistance to scholarships by the Fund has resulted in the establishment of a number of new scholarships. Administrative responsibility of these scholarships, along with procedural policy, is capably handled by the Bureau of Student Loans and Scholarships of the University.

The publication, by the Greater University Fund, of a scholarship report listing all scholarships available within the University has proved an effective and useful scholarship guide, not only to the University, but to high schools

and counselors around the state. This scholarship report during 1954 gained new status and it will go out in the future as a special bulletin of the University.

The Duluth Branch, though effective in raising capital type gifts from local interest in a specific building, has posed promotional problems as far as unrestricted-type money for scholarships and other development are concerned. During the past biennium, the Duluth Branch Development Fund, an unrestricted type project for the Duluth campus, has been set up by the Greater University Fund. Response so far to this project has been slow, but development of promotional plans in the Duluth area and a contact of former alumni of the Duluth State Teacher's College should provide an annual source of funds for this program. The North Star Scholarship Fund of the UMD, plus a number of other scholarships in the Duluth area, have been successfully established through the Greater University Fund.

During the past biennium, the Greater University Fund has undertaken an important role and share in the responsibility of raising \$300,000 for the St. Paul Campus Union. The Fund office has collaborated with President Emeritus Walter C. Coffey and Stanley Sahlstrom in organizing and carrying out the major efforts. It is anticipated that in carrying out this capital gift project with the alumni of the School of Agriculture, the College of Agriculture, and agricultural-connected industry in the state, it will not detract too much from the Greater University Fund's annual giving campaign aimed generally at alumni and friends of the University.

The "Student Aid and Research Project Program"—or the unrestricted portion of the Fund—represents a serious problem today. Serious difficulty has been experienced in attempting to increase the total number of dollars received for this phase of the program. During each of the past two years, \$25,000 has been reached, and then only by special emphasis and effort. Allocation of the student aid and research program has continued on a 50-25-25 basis. Fifty per cent of all gifts received for unrestricted purposes was allocated to the Minnesota Alumni Freshman Scholarship program, 25 per cent to the Greater University Fund Graduate Fellowship program, and 25 per cent to the Greater University Fund Research program.

During 1952 and 1953 three special mailings were made to individual alumni and friends of the University. These consisted of a spring report, which lists all contributors to the previous year's campaign and is mailed out in the spring of the year to kick off the campaign, a fall report mailed in the fall of the year lending special emphasis to the "Student Aid and Research Project" program of the Fund, and a year-end reminder urging those alumni who have not forwarded their contribution during the year to do so before the campaign ends. In addition to these three major mailings to some 60,000 alumni, thousands of individual special type letters are sent out annually. Personally typed "thank you" letters to contributors, specific requests for information, letters carrying procedural details of gifts, letters asking for assistance to a special project or an unrestricted Fund, or pledge follow-ups, represent the range of the Fund's extensive mail operation.

Financial assistance by the Fund to the promotion of a special project during the calendar year 1953, led to a large contribution in the first part of the 1954 campaign. A specific and carefully prepared presentation to the Fleishmann Foundation of Reno, Nevada, for the Cedar Creek Forest project resulted in a gift to the University of \$250,000.

The alumni members of the Board of Trustees of the Greater University Fund during both 1952 and 1953 included John K. Fesler (chairman), Parker D. Sanders, Dr. Edward Tuohy, Samuel Gale, and Mrs. Alice R. Warren Gaarden. Other members of the Board of Trustees during the biennium were: President J. L. Morrill, Vice President William T. Middlebrook, Vice President Malcolm M. Willey, and Regent Lester A. Malkerson. Edwin L. Haislet, alumni secretary, served as secretary of the Board. Stanley J. Wenberg served as director of the Fund until March 1, 1953, when he was succeeded by the writer.

Dr. William Braasch, '04, emeritus staff of the Mayo Clinic at Rochester, Minnesota, served as the 1953 National Campaign Chairman. Arthur Poole, '17, vice president of the American President Steamship Lines, San Francisco, held the same post in 1952.—ROBERT P. PROVOST, *director*.

## INDUSTRIAL RELATIONS CENTER

The Industrial Relations Center is completing its first decade of operation. Many of its activities have been called modern pioneering in the field of employment relationships. Its Faculty Committee which guides and directs the work of the Center is drawn from the various departments in the University, and is the basic policy-making agency of the Center. The Committee coordinates the entire program of interdisciplinary research, training, and service to the community. This three-fold program of Center operations has been carefully maintained since the organization of the Center in 1945. The Faculty Committee has benefited, throughout this period, from the continued assistance of a special Advisory Council, composed of representative citizens drawn from industry, labor, agriculture, and the public service.

**Research**—During the past two years, the research program of the Center has been reorganized around six major research laboratories. Each laboratory represents an area of research which, in the opinion of the Center's Faculty Committee and research staff, warrants continuing interest and emphasis. The laboratories now in operation are those in manpower mobility and marketing, professional development in employment relations, management development, union services, communications, and basic research.

The laboratories are a natural outgrowth of the Center's long-standing interest in the co-disciplinary approach to research in this field. The Center's stated purpose in research since the time of its founding has been to develop and operate a program of co-disciplinary studies. The problems of modern employment relations do not fit the limits of any single science or discipline. Studies need the attention of staff members in several disciplines, both in their design and in carrying projects through to completion.

Development of a method of administering the Triple Audit scales to large numbers of employees in firms throughout the United States has received continuing attention in our basic research laboratory. The Mail Triple Audit was developed for this purpose. It facilitates gathering data from firms in a nation-wide sample. The scale is administered by a professionally competent representative of the Center in the locality of the firm. All completed schedules and questionnaires are sent to the laboratory for analysis.

The studies of industrial relations budgets, salaries, and ratios have been continued by the professional services laboratory. Recent analyses of budgets of personnel departments show that funds are allocated to 14 major functions. Information on functional personnel ratios and salaries of industrial relations positions is collected annually through a nation-wide survey of practitioners in the field.

The management development laboratory was established early in 1954. Its current program of research, financed in part by grants from industry, includes analysis and description of management jobs, identification of management potential, classification and evaluation of management training programs, and studies of management compensation. Two studies of management development conducted for the U. S. Air Force in 1952-54 examined vocational interests and careers of USAF administrative officers.

Attitudes of union members toward union policies and practices are being studied in the union services laboratory. Data will be analyzed to discover relationships between patterns of policies and practices and member attitudes.

The work of the communications laboratory has centered around the construction of an "input-output" communications scale to measure effectiveness of communications within a firm. Other studies have included a study of communications and employee morale, a comparison of subjects of major interest to employees with subjects on which they have been informed, and steps toward development of a consensus scale to measure extent and direction of communications.

Interest in the research program of the Center has been widespread and active among industrial relations practitioners. Through their enthusiastic cooperation and participation in various research studies, these individuals have earned special recognition. On October 28, 1952, the Advisory Council approved a plan to award Research Affiliate certificates for outstanding assist-

ance in the Center's research program. To date, several hundred individuals have earned this certificate.

**Training**—Graduate and undergraduate training in industrial relations is offered by several existing University departments leading to Bachelor's and graduate degrees culminating in the Ph.D. degree. The Center itself offers no courses, but encourages the student to obtain a broad, comprehensive training in the several disciplines in the area of employment relations. Courses in economics, business administration, psychology, sociology, political science, and industrial engineering are emphasized in an integrated program for students working toward a degree. In July 1953, the Graduate School approved an experimental program leading to a Master's degree in industrial relations for persons whose professional objective lies in this field but whose undergraduate work does not include the prerequisite courses specified by individual departments. Students are selected on the basis of the quality of their undergraduate work. Programs are planned to meet individual needs.

Professional training for persons already working in industrial relations is provided through cooperation with the General Extension Division. To meet the special needs of the students already at work in industrial relations positions, several technical courses in psychology, economics, business administration, supervision, current problems in industrial relations, personnel methods, and human relations are offered. A certificate in industrial relations may be earned by a student who completes 45 credits of course work and passes the Industrial Relations Classification and Placement Test administered by the Center. In 1952-53, seven certificates were awarded.

The Workers' Education program, carried on in cooperation with the General Extension Division, has received enthusiastic acceptance by the various union organizations. Since it was started in 1951, a total of 1,286 registrants have enrolled in 39 classes which have been sponsored by 7 central labor bodies and 13 local unions. Subjects include union leadership training, union administration, labor legislation, time and motion study, collective bargaining, parliamentary law, and public speaking. In August 1953, and again in 1954, Summer Labor Institutes were held at Lyman Lodge on Lake Minnetonka, in cooperation with the Center for Continuation Study.

The Center's program of conferences and short courses has become widely recognized as a vital part of the training function. Four conferences on subjects of current importance are scheduled annually, and special short courses are held periodically. A total of 821 persons registered at the 8 regular conferences held during the biennium. Topics discussed at conference programs included Communications in Industrial Relations, Problems of Economic Security, Public Relations for Unions, Union Welfare Programs, the Guaranteed Annual Wage, and Research in Human Relations and Union-Management Relations.

The Center has continued to participate in the selection of qualified high school graduates to receive scholarships at the University of Minnesota awarded by several unions.

**Service**—As the Center has developed and its work has become known, requests for services have increased. During the past two years, members of the staff spoke and reported on research to 107 professional societies throughout the United States and participated in meetings of 58 other professional societies. Six groups were given assistance in conference planning. Staff members counseled 242 individuals on problems of professional job placement. Staff members have served on the Governor's Advisory Commission on Problems of the Aging and on examining boards for the Minnesota Civil Service Department. The Labor Committee of the United States Senate requested that staff members prepare a report on the use of specialized manpower in periods of emergency. This report, "Manpower Blueprint for a Free Economy," was released by the Senate Committee in 1953.

The IRC Reference Room handled 683 requests for information during the biennium. These requests covered a wide range of subjects from absenteeism to wage surveys. They have not been limited to Minnesota citizens but have come from persons in various sections of the United States and Canada. When

questions call for more than a brief answer, books and pamphlets from the Center's reference collection are loaned to the inquirer, or a special list of references is prepared. In addition to the 48 special bibliographies prepared in answer to requests, the reference staff prepared annotated bibliographies on the national debate topics for use by college and high school debate teams.

Information about the Center's activities, announcements of its publications, and reports on the results of its research are sent to selected groups drawn from a classified mailing list of about 10,000 persons, schools, and organizations who have requested them. In a very real sense, this mailing list includes a national roster of professional industrial relations personnel.

**Publications**—Results of research studies and proceedings of conferences are made available in three series of bulletins published by the Center and in a wide variety of professional and technical journals. Publications released directly by the Center during the biennium include one *Bulletin*, three *Research and Technical Reports*, and five *Reprints*.—DALE YODER, director.

# Divisions of Academic Administration

## OFFICE OF THE DEAN OF STUDENTS

This report now includes descriptions of our evolving responsibilities in the orientation-registration program, in residential counseling, and on the St. Paul campus.

During this biennium the staff has made significant professional improvement. Seven staff members have completed work for and been granted Ph.D. degrees. Several important research projects with importance for student personnel work have been undertaken through financial support of the U. S. Public Health Service, Louis W. and Maud Hill Family Foundation, the Graduate School, and other sources.

**Orientation-Registration Program**—The Office of the Dean of Students has continued its functions of coordinating and supervising a campus-wide orientation program consisting of six major activities. During 1953-54, over 350 student leaders participated in planning this program. As one part of its six-point orientation program, the Two-Day Orientation-Registration Program held each quarter and first term of Summer Session was attended by 8,241 students during the biennium. In 1952, 90 per cent, and in 1953, 93 per cent of the freshmen participated in this program. The Freshman Camp program now centers emphasis on introducing the new student to an understanding of the personal, intellectual, social, aesthetic, and moral changes that he will experience during his four years in the University. Scholarships have been made available for those students who are unable financially to attend camp, 38 being awarded in 1953. In 1953, 326 students attended camp, a 33 per cent increase over the preceding year.

More than 3,000 parents attended the special Parents' Day program. The Welcome Week program included three Classroom Preview sessions during 1953. These sessions, conducted by University professors, acquainted students with differences between high school and University teaching and curricula. A larger number of freshmen club groups, formed during the Two-Day Orientation-Registration program, have remained active during the school year. These groups have assisted in Campus Chest and Homecoming activities. A major revision of the new student handbook, the *Moccasin*, was made during 1953, including new materials addressed to parents.

**Residential Counseling**—During 1953-54, 17 men dormitory counselors, 37 women dormitory counselors, 48 academic and professional fraternity counselors, and 20 sorority housemothers were employed, trained, and supervised.

Our bureau staffs provided supervision and assistance concerning activity projects, work with individual students about study schedules, learning to use time efficiently, and learning how to make other adjustments necessary in college. Counselors also identified students requiring more specialized services.

One staff member was assigned to serve half time as coordinator of residence counseling. The coordinator is responsible for recruiting residence counselors, selecting and certifying applicants, organizing and conducting training programs, and evaluating the effectiveness of the program. During the biennium, there were 8 Residence Council meetings, 60 Residence Board meetings, 2 Two-Day Orientation sessions for residence counselors, 12 general training meetings for counselors, and 216 special training meetings for counselors in the various residence units.

A total of 152 applicants for counselorships were reviewed, and 114 were certified. Three program objectives were emphasized during 1953-54: the role of a residence counselor in raising the level of intellectual activity within the residence units, in developing the cultural potential in the unit, and in developing attitudes of students' loyalty toward the University.

**St. Paul Campus**—During this biennium, staffs of the Student Housing Bureau, Student Activities Bureau, Student Counseling Bureau, the Foreign

Student Adviser's Office, and the Coordinator of Student Religious Activities have been moved from the Temporary South of Haecker Hall to Room 215 Coffey Hall. This central location has facilitated communication with students and staff. During this period there have been more than 9,000 contacts with students and staff each year. Over 150 conferences with other St. Paul Campus staff members were held in 1953-54.

**Foreign Student Adviser**—The number of enrolled foreign students increased from 561 to 630 during the biennium. The ratio of men to women remained about five to one, and 85 per cent were graduate students. The Canadian and Indian students were the largest groups. There were increased numbers of students from Korea and the Philippines and a reduced number from Japan and Germany.

During this biennium a community Committee for International Students and Visitors was formed. The American Brother/Sister Program continued to develop, involving about 100 American students each year in an improved orientation program for foreign students.

The number of students requiring intensive assistance increased. Six students were hospitalized for lengthy periods. Chinese students were faced with the difficult choice of returning to the Chinese mainland or remaining in the United States. These choices were further complicated by restrictions on scientists and physicians.

The Exchange Scholarship program between students of this University and the Free University of Berlin has continued with the financial support of the All-University Student Congress.

**Coordinating Religious Activities**—The Minnesota program, pioneered in 1947, of welcoming voluntary student religious organizations and providing a framework within which to function independently but harmoniously has made encouraging progress. The number of organized religious groups on the Minneapolis and St. Paul campuses has increased from 28 to 30 over the past two years with a total of 48 persons engaged professionally in the pastoral and counseling ministrations to these groups. The percentage of students signing the voluntary religious preference cards increased from 68 per cent in 1951 to 69 per cent in 1952 and 74 per cent in 1953. Instances involving University-wide expression of religious participation are to be found in Church Night during Welcome Week, Religion in Life Week, and Brotherhood Week.

In the Inter-Religious Reading Room, 50 periodicals representing the various faiths functioning on the campus are being regularly received. During the two-year period, 146 students and 31 faculty members have utilized the material personally, while there has been a circulation of 837 books, pamphlets, and periodicals chiefly to members of the faculty.

**Student Loans and Scholarships**—In terms of case load and dollar value, student financial assistance during 1953-54 increased markedly from that of the preceding year. This increase is in keeping with the trend noticeable immediately following World War II. There are some factors which seem to contribute significantly to the increased activity of students with respect to financial aids: (1) the continuing high cost of living and tax load for the family unit, subsequently allowing relatively little to be set aside for education; (2) the increased special services to students through financial aid programs sponsored by government, private industry, and labor unions; (3) the continued growth of our freshman scholarship program which is designed to give initial assistance to competent but needy youth; and (4) assistance to veterans on Public Laws 16, 346, and 550 who need temporary aid to supplement government subsidy.

	1950-51	1951-52	1952-53	1953-54
Number of students interviewed . . .	2,749	2,673	2,815	3,234
Number of scholarship applications . . .	1,013	1,178	1,267	1,709
Number of loan applications . . . . .	1,012	1,041	1,048	1,173
Total counseling and aid cases . . . . .	3,769	3,710	3,333	3,982
Loan aid from University funds . . . . .	\$97,937.16	\$98,365.07	\$111,197.33	\$137,052.38
Loan aid through referrals . . . . .	3,350.00	4,475.00	5,110.00	5,125.00
Scholarship aid through University funds . . . . .	63,043.75	100,316.14	122,479.08	129,464.42
Scholarship aid through referrals . . . . .	950.00	1,100.00	1,240.00	965.00

In addition to administering these direct student aids, this Bureau cleared payments to Chinese and Korean students under grants provided by the U. S. Government. Such aids totaled \$7,691.00 to 11 students in 1952-53 and \$1,980.00 to 2 students in 1953-54. The Bureau continued to administer University grants-in-aid program for certain veterans. Grants-in-aid to eligible veterans totaled \$13,715.73 to 136 students in 1952-53 and \$6,671.94 to 78 students in 1953-54. It also approved 70 gift layettes in 1952-53 and 62 in 1953-54.

**Student Activities**—The Student Activities Bureau has continued its functions of supervising, coordinating, and advising student programs. There were 369 organized groups at the end of this biennium. A total of 29,037 conferences, training programs, and interviews were held with students and 5,063 staff approvals were given for as many student events. In 1953-54, a total of \$56,239.35 was raised through charitable drives and projects carried on by students under the direction of this Bureau. This total approximated a 60 per cent increase over the amount raised during the previous year.

During the biennium several important steps were taken to increase student participation and responsibility in extracurricular activities. One was the adoption by the Senate Committee on Student Affairs of a policy stating the responsibility of student organizations for the conduct of members in group-sponsored activities. A new auditing service was organized by the Fraternity Purchasing Association and contracts were signed with 54 of the 72 fraternal-residential organizations.

Increased use has been made of the residential counselors as extensions of our staff in supervising and stimulating residential extracurricular activities. The need for a balance between academic and extracurricular programs of the University was emphasized.

**Student Conduct**—Reported cases of student misconduct increased considerably during the biennium. Individual discipline and rehabilitation counseling cases for 1953-54 totaled 290 (199 men and 91 women) and for 1952-53, 262 (175 men and 86 women). These data compare with 212 cases in 1951-52 and 257 in 1950-51.

There were 18 student organizations reported in disciplinary incidents in 1953-54 and the same number in the preceding year.

Of the 290 students in disciplinary situations during 1953-54 a total of 24 were involved in more than one incident during the current or preceding years. The corresponding figure for 1952-53 was 21 of a total of 262.

In addition there were 598 minor violation cases handled in 1953-54 by student referral boards in the four women's residences and 32 cases of misconduct by the recently organized (1953) Pioneer Hall Judiciary Committee. Centennial Hall effected a similar organization to begin functioning in the fall of 1954. Our staff members assisted in both the organization and continued operation of the dormitory judiciary committees.

The increase in individual misconduct on the University campus parallels to some degree the rising rate of delinquency in the country at large. It also appears related to the growing student enrollment as well as to the younger age of the student population.

**Speech and Hearing Clinic**—The period 1952-54 has been one of marked developments in the research program of the Clinic. Four Master's and one Doctor's degrees have been completed as a part of the research program and the data for two other Doctor's dissertations have been collected. In addition, significant researches have been instituted in the area of vocal pitch and stuttering. There has been a continual appraisal of the freshman testing and classification program and a refinement of its operation. New services to students have been developed, particularly in the area of work with informal and small groups. All members of the staff have continued their professional growth in significant ways. Much basic equipment for service and for research has been acquired and put into use. The members of the staff have continued to play a significant part in the organization of their professional state and national groups. Although the Clinic felt the effects of the 1950-52 staff reduction, internal changes made it possible to maintain quality of service to students.

During this biennium, the Clinic provided therapy for 630 students and 254 out-patients. The number of contacts involved in this therapy was 40,104. Speech and hearing examinations were administered to 7,922 new students and special tests were administered to 2,127 students.

**Student Counseling**—The Student Counseling Bureau continued to provide professional counseling and testing services to University students and consultation services to university, college, and high school faculty members.

	1952-53	1953-54
Total number of cases .....	3,004	3,087
Total number of interviews .....	7,587	7,889
Case reports to other counselors .....	5,190	5,013
Case reviews and consultations .....	631	606
Number of psychological tests administered .....	279,032	299,584

The Educational Skills Clinic provided remedial assistance to 397 students in 1952-53 and 418 students in 1953-54. The total number of student visits to the Clinic was 4,819 in 1952-53 and 5,655 in 1953-54. Special counseling services were provided to 108 physically disabled students in 1952-53 and to 95 disabled students in 1953-54. Non-college cases counseled amounted to 274 in 1952-53 and 247 in 1953-54. The total number of counseling contacts registered at the Faculty-Student Contact Desk was 56,368 in 1952-53 and 38,547 in 1953-54. In 1952-53, 454,156 tests were scored and in 1953-54, the total was 430,744. A total of 24,964 student visits to the Student Counseling Bureau were recorded in 1953-54, as compared to 23,141 in 1952-53.

During the biennium, counseling services on the St. Paul Campus were expanded, a total of 143 interviews being held with 40 students during the year 1953-54. During that year, 43 contacts were initiated with faculty advisers on that campus. Increased time and effort were expended on the State-Wide Testing Program which underwent budgetary, personnel, and space reorganization.

**Student Housing**—The residential status of each student enrolled in the University the fall quarter of each year was as follows:

	1952-53		1953-54	
	Men	Women	Men	Women
Parents' homes* .....	5,030	2,234	4,857	2,323
Relatives' homes .....	263	92	71	214
Friends' homes .....	52	15	54	25
Dormitories† .....	1,523	975	1,369	970
Fraternities or sororities .....	748	271	733	290
Apartments .....	1,740	413	1,354	335
Rooming houses .....	1,652	389	1,611	390
Own or rent own home .....	540	117	526	113
Employers' homes .....	76	32	52	23
Total .....	11,624	4,538	10,627	4,683
No returns .....		1,331		2,369
	17,493		17,679	

\* In Minneapolis and St. Paul, including commuters from the suburbs.

† Includes temporary facilities at University Village, nurses from Powell Hall, and students from cooperative houses.

The placement of students is accomplished through personal interviews, and the housing counselors present to each student the availability of all approved types of housing so that the student may make a choice based on current information. The staff's work load has increased in proportion with the increasing enrollment as well as with the increased complexity arising from restricted and deteriorating facilities.

	1952-53	1953-54
Interviews with householders .....	1,828	1,657
Interviews with students .....	4,910	5,030

The number of approved rooming houses and apartments was 2,510 in 1952-53 and 2,747 in 1953-54. The number of disapproved houses in 1952-53 was

99 and in 1953-54 it was 175. Stricter enforcement of city and state housing codes and laws by the city of Minneapolis has caused a 71 per cent increase in disapproved houses each year of the biennium. During the first year of the biennium, 766 Health Service inspections were requested. In 1953-54 the number was 820.

The work with rooming house students' groups and clubs has continued. During 1952-53, 54 houses held 118 meetings with one to four meetings in a house. In 1953-54, 41 houses held 95 meetings with from one to four meetings per house.

In addition to the placement, inspectional, and approval functions, the Bureau places emphasis upon assisting each student with his individual housing needs in such a way that the student's residential environment will contribute in a positive way to classroom learning and social growth.

**Counseling Veterans**—The passage of Public Law 550 providing educational benefits for veterans of the Korean conflict made it necessary for the Bureau of Veterans Affairs to work closely with the Veterans Administration and University departments to determine how the new regulations would affect University programs. The case load of the Bureau became more complex since most of the remaining World War II veterans were involved in a variety of research efforts related to their work in the Graduate School. The functions of the bureau remained essentially the same as during the previous biennium: (1) orientation of new veterans at the time they were admitted to college; (2) continued counseling and assistance when the veteran needed them; (3) exit interviewing; (4) the issuance of the necessary book and supply vouchers; and (5) functioning as the liaison office between the Veterans Administration, the student, and the University.

In carrying out these functions during the biennium, the Bureau held 16,128 interviews. A total of 12,427 book and supply vouchers were approved and issued. Numerous conferences were held with the University Committee on Veterans Affairs and representatives of college offices and academic departments concerning the reassignment of the responsibilities for veteran training to the Office of the Comptroller and of Admissions and Records.

**University Veterans' Counseling Center**—This Center continued to provide counseling to all veterans referred from the Veterans Administration. The biennium began with a load of 27 cases and gradually increased to 138 cases processed per month. This increase in referrals resulted from the passage of Public Law 550—the Korean G.I. Bill. The case load is expected to increase during August 1954, with a gradual decline expected after that date.—EDMUND G. WILLIAMSON, *dean*.

## UNIVERSITY OF MINNESOTA LIBRARIES

On June 30, 1954, the total number of accessioned volumes in the Twin Cities units of the University of Minnesota Libraries was 1,702,067. This represents an increase of 86,385 volumes over the June 30, 1952 figure. Insofar as the sizes of libraries can be determined, the University of Minnesota Library ranks seventh in size of the great university libraries of this country.

During the biennium there were several changes in the administrative organization of the Libraries. Professor Edward B. Stanford was appointed director of libraries on July 1, 1952, having served as acting University librarian after the promotion of Professor Errett W. McDiarmid to the post of dean of the College of Science, Literature, and the Arts, in July 1951. Also, on July 1, 1952, the administration of the University Bindery was transferred from the Libraries to the Department of University Services.

On July 1, 1953, the Division of Library Instruction, which up to that time had been under the administration of the director of libraries, was renamed as the University of Minnesota Library School, with full status as a professional school within the College of Science, Literature, and the Arts. With this change, a new director of the Library School, David K. Berninghausen, was appointed. The establishment of two assistant director positions—one for Collections and Bibliographic Services and one for Administration and Readers Services—completes the major administrative changes during the biennium.

In addition to the normal acquisitions made to the Libraries in the form of books, periodicals, and other types of literature, there were a number of notable collections added. Significant purchases totaling over \$12,000 worth of books on early exploration and travel were made by the University to supplement the James Ford Bell Collection during the biennium.

Negotiations were completed for the transfer of the Ames Library of South Asia to the Libraries not later than July 1961. This unusual collection, assembled over a period of many years by its founder, Charles Lesley Ames of St. Paul, comprises a rich resource on India and South Asia and will materially enhance the University's holdings covering this area.

The family of the late educational leader, Werrett W. Charters, presented to the University a Paul Bunyan Collection, which had been gathered together over a period of many years by Professor Charters. It consists of an extensive collection of books, pamphlets, periodicals, manuscripts, pictures, newspaper clippings, phonograph records, and memorabilia of various kinds which relate to Paul Bunyan. During the biennium the Libraries also purchased the David Eccles Collection of books relating to early travel in Russia. This important purchase consisted of some 320 volumes, dating from the 16th to the 20th century, most of them from the 18th and 19th centuries. A number of additions were made by Dr. Irvin Kerlan to the Kerlan Collection of Children's Literature which he has given to the University Libraries. His many contributions continue to make this an increasingly distinctive collection of children's books and original illustrations. Frank Leslie continued to add to the Leslie Collection of specimens of fine printing.

The Friends of the University Library celebrated the tenth anniversary of its founding in May 1954 with a dinner. For the past several years the Friends have shown an active interest in the development of the University Libraries' collections, and their contributions have made possible the acquisition of a number of notable publications which the Libraries would not otherwise have obtained.

There have been several important personnel actions during the biennium. Harold G. Russell was appointed assistant director for Collections and Bibliographic Services in October 1952. Professor Russell, a long-time member of the staff with varied and increasingly responsible experience in the Libraries, fills a new position in the administrative organization. The assistant directorship for Administration and Readers Services was filled by the appointment, effective July 1, 1953, of Ralph H. Hopp, formerly of the University of Nebraska Libraries. Blanche Moen was appointed chief reference librarian to fill the position vacated by Mr. Russell. David R. Watkins was appointed principal librarian in the Reference Department succeeding Miss Moen. Mrs. Maxine Clapp was appointed archives librarian, replacing Mrs. Marian Christensen. John Parker was appointed curator of the James Ford Bell Collection, a new position established for the purpose of guiding and managing this rapidly growing Collection.

The use of library materials continues to be heavy. There has been a recorded use of over 750,000 books a year from the General Library. Of this use, nine-tenths of it represents students, and one-tenth faculty. There has been a continuous increase in the use of the inter-library loan service. In the first year of the biennium, there was a 13 per cent increase in this activity. In the second year there was a 45 per cent increase in the material borrowed on inter-library loan, and a 10 per cent increase in the material loaned to other scholars and institutions. Reflecting the interest of our students and faculty in the affairs of the world, there has been a great increase in the use of United Nations publications. Nearly 19,000 items were added to the United Nations Documents Collection during the biennium. There continues to be an increasing use of microfilms, microprint, and microcards as our collections of these micromedia expand.

To facilitate the service to undergraduate students in the Reserve Book Room, the majority of assigned materials were transferred to an open-shelf reserve collection, at the beginning of the 1953 fall quarter. This service, combined with the Freshman-Sophomore Library facilities (opened at the end of the last biennium), now provides the undergraduate student with direct, unrestricted access to his major needs for reading materials, except for certain current and bound files of periodicals. There is considerable evidence that the

establishment of the Freshman-Sophomore Library was a worthwhile venture. It is not at all uncommon to see this Library, with its 300 chairs, filled to capacity, and students wanting seating space which is not available.

There have been several major changes in the physical plant of the University Libraries. Among the much-needed improvements was the opening and dedication of a new building for the Agriculture Library, on the St. Paul Campus. This Library is now one of the few adequately-housed agricultural libraries in the country, and has been visited by a number of people planning similar libraries at other institutions. The new facility has brought about a major change in library service to its users.

The new University High School Library, located on the ground floor of Peik Hall, was occupied in the spring of 1953. This library promises to be a great asset in the library program of the High School.

The James Ford Bell Room, on the first floor of the Main Library, was dedicated in October of 1953. This special room, with its air-conditioned vault, original, period furniture, linen-fold paneling and stained glass window, is a gift by Regent James Ford Bell to the University. The book vault houses the James Ford Bell Collection and numerous University rare volumes from the General Library's collection pertaining to the early exploration and travel in North America. It occupies the area formerly housing the Archives Room.

The Archives Room was moved to the basement of the Library in a remodeled and redecorated area. The Mathematics-Physics Departmental Library moved into new quarters in May 1954 on the second floor of the Physics Building. With completely new furniture, decoration, and lighting, this Library is now one of the more attractive departmental libraries on the campus. As the beginning of a special collections area, a room on the third floor of the Main Library was remodeled and redecorated. This Special Collections Room houses several of the gift collections, and represents the beginning of a facility for the more adequate housing of special materials the Libraries receive from individual donors.

A number of staff members continue to teach in the Library School, as an added responsibility to their full-time jobs. Several members served as occasional visiting lecturers in other classes during which they told of the function and use of libraries. Hugh Sauter, librarian of the Engineering Library, inaugurated a course devoted entirely to the use of engineering literature. This course is now part of the curriculum in the College of Engineering.

There are several major needs. Among these is the provision of adequate study halls throughout the campus for the expected increase in student enrollment. The University finds itself in the position of attracting more students and providing more faculty and courses, with no increase in its study facilities for students. The campus needs in this respect are more critical than in many institutions because of the high percentage of Twin Cities residents who spend the entire day on campus and, having no dormitory rooms to which they can return, need to find places to study.

Another major physical need is for suitable quarters to house the Biomedical Library in the Biological-Medical and Dental Sciences area. When such quarters can be provided, the faculty and students in these areas would have far better library service and the removal of the present Biomedical Library to new quarters would release badly needed space for other uses.

A third major and nearly critical need is for more storage space for little-used materials. It is strongly recommended that this need be met through the construction of a storage warehouse in the Twin Cities area, preferably on the University property on Como Avenue. This type of warehousing would provide perhaps the most economical and yet most efficient type of storage for library materials which are used infrequently than could be obtained by any other means, such as building a major addition to the University Library building, or the much more liberal transfer of material to the Midwest Inter-Library Center.

A less specific, but still urgent need is the establishment of general University policies with respect to the development of the departmental library collections, conditions governing the acceptance of gifts, and a more definitive policy concerning the extent of coverage which the Libraries should undertake to achieve in providing publications in the various fields of interest to the University.—EDWARD B. STANFORD, *director*.

## OFFICE OF ADMISSIONS AND RECORDS

**Policy and Procedure**—The Office of Admissions and Records continued to study its policies and operating procedures in an effort to personalize dealings with students, to make its most experienced people available to individuals seeking assistance, and to devise means of dealing mechanically and on a quantity basis with routine matters. There was rearrangement in the physical location of bureaus within the offices of the recorder and the admissions officer, and some increase in the complement of office machines and equipment. The remodeled office on the St. Paul Campus was occupied and found to contribute both to the working efficiency of employees and to the accessibility given students to those who could assist them.

**Credit for Non-Institutional Educative Experience**—Through the Admissions Office there was initiated a reporting back to the various colleges of the University on development of procedures for the granting of special advanced standing credit, by examination or otherwise, for educative experiences of former servicemen and non-veterans. This represented an attempt to cause the colleges to move forward aggressively with procedures which, although they had been approved, appeared to be little used by many students who could profit from them.

**Assistance to Students in Connection with Military Service**—The Office continued to provide data to Selective Service Boards for those students granted military deferment. The number of Selective Service registrants dealt with throughout the period averaged on the order of more than 3,000 annually and a total of about 5,000 or more files were normally active. This work necessitated meeting a number of deadlines in reporting, numerous calls to boards, and many direct contacts with students who came in to consult on problems and draft reclassifications. As numbers of Korean veterans under educational benefits increased throughout the biennium, monthly reporting of attendance by those students assumed ever greater significance as a work assignment. Since these veterans are not identified as veterans in the tabulations, inasmuch as they paid their own fees as regular students, it is significant to note that they tended to number between 1,000 and 2,000 during the period dealt with.

**Special Surveys and Research Reports**—An unusual amount of responsibility in the preparation of special reports fell to the Office during the biennium. Among national surveys in which the University participated, and in which this unit provided results, should be mentioned a study of the quality of work done by Selective Service registrants, conducted by the Educational Testing Service, and a basic survey of the holding power of students in college, under the direction of the U. S. Office of Education and the American Association of Collegiate Registrars and Admissions Officers. The Office also assisted in the origination of much data on the outlook for higher education in Minnesota, in view of increasing numbers in the college age group. It provided approximately 60 departments or administrative divisions of the University with preliminary background estimates to be used in the University Self-Survey. This entailed participation even in departmental or college committees engaged in educational planning.

**Work of Committees Serving the Office**—Several faculty committees which normally assist the Office on policy were especially active. Among these may be mentioned the Board of Review (the residency board) which continued to see many students who desired residence classification; and the Board of Admissions which, in addition to its work with student cases, discussed trends in admission policy and assisted in obtaining and allocating foundation funds for local studies of the plans and degree of college attendance of Minnesota high school graduates. A new committee on Relationships of the University with Prospective Students served the dean in the initiation of new work involving coordination of visits by staff members to secondary schools and analysis and improvement of publications useful to high school students.

**New Brochure-Type Publications**—Under the auspices of the Committee on Relationships with Prospective Students a new type of brief, readable Uni-

versity publication was conceived and initial issues published as leaflets descriptive of certain areas of study. Forty or more of these different leaflets are envisioned, with each manuscript to be prepared by the instructional unit concerned. Their purpose is to describe to the student in any level of high school the various and distinctive educational opportunities at the University. It is believed that the readers will be better served by these than by conventional catalogues and that much correspondence and some expense can be saved.

**Annual Enrollment**—The 1952-54 biennium was a turning point in University enrollment—marking the end of a period of decline that lasted from 1947 to 1951 and the beginning of an era of increasing numbers of students that is expected to continue through the next decade and beyond. The upturn in enrollment can be attributed primarily to the increase in birthrate that became significant in the middle 1930's. Children born then are now beginning to come to college.

The University served 65,948 different persons in 1952-53 and 67,529 in 1953-54 (Table V). Of these, 26,225 during 1952-53 and 26,340 during 1953-54, were collegiate students enrolled during the academic year or in Summer Session (Table I). All of these enrollments were above those of 1951-52, the final year of the previous biennium.

**Enrollment by Colleges**—Enrollment, exclusive of Summer Session, increased or remained relatively constant in all colleges of the University except the Medical School. The lower enrollment shown for the Medical School for 1953-54 reflects a change in policy with respect to interns. The internship requirement of the University was discontinued effective that year.

**Men and Women**—The ratio of men to women that has been declining in recent years appears to have stabilized at 70 per cent men and 30 per cent women, with enrollments of men and women both increasing at the same rate during the 1952-54 biennium.

**Student Veterans**—World War II Veterans receiving educational benefits (Table IA) constituted 9 per cent of the collegiate student body during 1952-53 and 6 per cent during 1953-54. These proportions differ significantly from those of the last biennium when veterans constituted 26 per cent of the student body in 1950-51 and 16 per cent in 1951-52. Completion of educational programs by veterans was a major cause of the decline in University enrollment subsequent to the post World War II bulge.

**Out of State Enrollment**—(Tables XA and XB)—The over-all nonresident enrollment, including registrants in the Graduate School, was 14 per cent of the total in each year of the biennium. The Graduate School and the School of Public Health had the greatest percentages of nonresidents. The student body in the Graduate School, including Mayo Foundation fellows, was 48 per cent nonresident in 1952-53 and 46 per cent in 1953-54. The School of Public Health had 55 per cent nonresidents in 1952-53 and 56 per cent in 1953-54.

The number of foreign students increased both years of the biennium. There were 547 enrolled in 1952-53 and 590 in 1953-54.

**New Matriculants**—More new students entered the University during the biennium 1952-54 than during 1950-52. The major portion of this increase was in freshmen direct from high schools, reflecting the increase in birth rate previously mentioned. There were 4,179 freshmen and 1,927 new advanced standing students in 1952-53 and 4,308 freshmen, 1,849 new advanced standing individuals enrolled in 1953-54. Total new matriculants increased from 5,277 in 1951-52 to 6,106 in 1952-53 and to 6,157 in 1953-54. (Tables VIIIA, VIIIB, IXA, IXB, Fig. 1.)

**Source of Matriculants**—Approximately 92 per cent of the students coming directly from high schools during each year of the biennium were from Minnesota high schools. Of these freshmen, 44 per cent were from public high schools in Minneapolis and St. Paul. Minneapolis accounted for 32 per cent of the total.

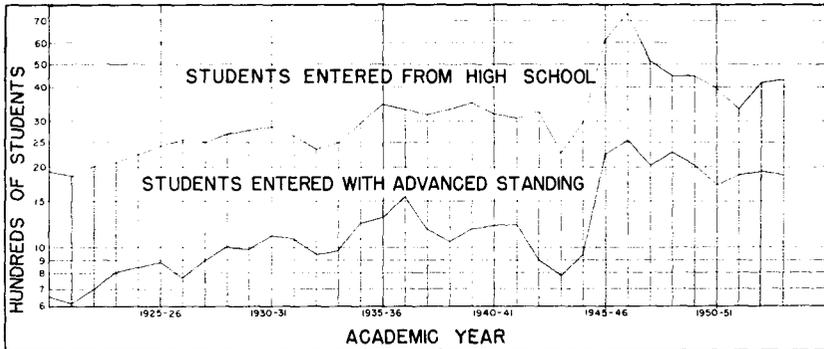


Figure 1

Of the new advanced standing students at the University, approximately 56 per cent were admitted from educational institutions in Minnesota each year of the biennium.

**Conferred Degrees**—The University granted 4,643 degrees during 1952-53 and 4,357 during 1953-54. (Table VIIA and Fig. 2.) The peak in number of degrees came in 1949-50 when 7,082 degrees were awarded. The rapid decline in the number of degrees granted reflects the loss through the completion of course work by the large veteran component of the student body.

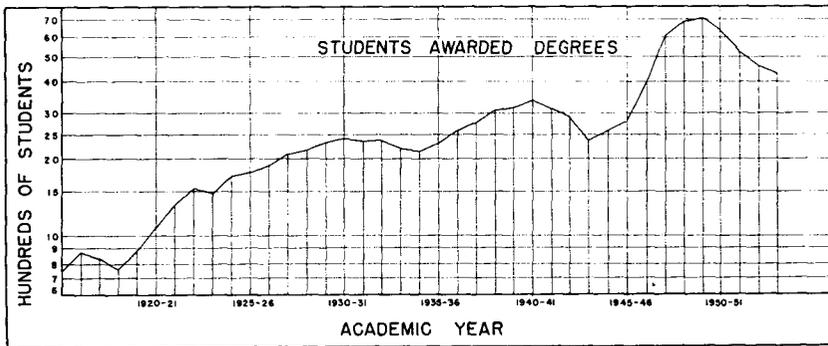


Figure 2

**Summer Session**—(Table I)—There were 9,028 individuals enrolled during one or both terms of the 1952 Summer Session. The number decreased in 1953 to 8,489. The percentage of summer students enrolled during the second term which has been declining in recent years increased from 39 per cent in 1952 to 40 per cent in 1953. This change is a significant reversal in trend resulting, possibly, from the revision of the Summer Session calendar in 1953 so as to make the second term more attractive to students because of an earlier closing date.

**Extension Division**—The evening class enrollment (Table IVA) increased each year of the biennium. There were 11,384 students enrolled during 1952-53 and 11,722 during 1953-54. The peak of evening class enrollment was 12,458 in 1948-49. Extension short course enrollments were 994 in 1952-53 and 1,525 in 1953-54.

Correspondence Study enrollment was 6,200 in 1952-53, the highest in five years; and 5,512 in 1953-54. The peak of Correspondence Study enrollment was 11,109 in 1944-45.

The Center for Continuation Study (Table IVB) established new enrollment highs each year of the biennium with 8,679 students in 1952-53 and 9,619 in 1953-54.

**Subcollegiate Enrollments**—The subcollegiate enrollment (Table III and Fig. 3, Schools) was 1,838 in 1952-53 and 2,024 in 1953-54. All of the schools of agriculture, the University High School, Nursery School and Kindergarten, and the University Elementary School had higher enrollments than in the previous biennium. Figures for the Southern School of Agriculture at Waseca that opened in 1952-53 are included in this report.

Total enrollment in short courses conducted by the schools of agriculture (Table III) decreased from the previous biennium. Short course enrollment was 13,402 in 1952-53 and 13,928 in 1953-54.

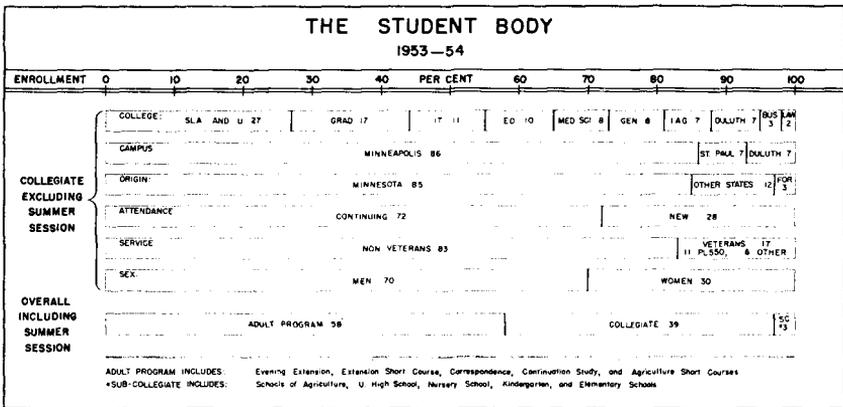


Figure 3

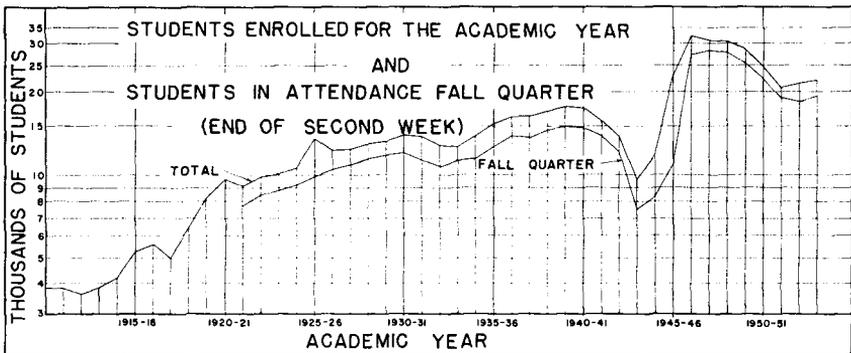


Figure 4

**Tables and Charts**—Among the tables and statistics, Table V is the most useful to many readers, since it summarizes the number of different students instructed at every level each year. The accompanying charts show enrollment trends. In Figure 3 an attempt is made to depict significant data with respect to composition of the student body. Figures 1 and 2 show trends in new matriculants and degree awards. Figure 4 contrasts college year enrollment with fall term attendance, through the years. Tables follow.—R. EDWARD SUMMERS, dean.

TABLE I. COLLEGIATE ENROLLMENT BY COLLEGES AND SCHOOLS, 1952-54

College or School	1952-53			1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>General College</b>								
Second year .....	451	156	607	474	166	640	33	.....
First year .....	858	217	1,075	812	257	1,069	.....	6
Adult specials .....	24	7	31	22	7	29	.....	2
Totals .....	1,333	380	1,713	1,308	430	1,738	25	.....
<b>University College</b>								
Seniors .....	24	12	36	24	20	44	8	.....
Juniors .....	11	14	25	23	15	38	13	.....
Sophomores .....	1	1	2	7	1	8	6	.....
Adult specials .....	1	1	2	2	1	3	1	.....
Totals .....	37	28	65	56	37	93	28	.....
<b>Science, Literature, and the Arts</b>								
Seniors .....	674	358	1,032	684	316	1,000	.....	32
Juniors .....	851	466	1,317	645	305	950	.....	367
Sophomores .....	1,338	728	2,066	1,211	723	1,934	.....	132
Freshmen .....	1,307	755	2,062	1,157	712	1,869	.....	193
Adult specials .....	247	177	424	264	169	433	.....	9
Totals .....	4,417	2,484	6,901	3,961	2,225	6,186	.....	715
<b>Institute of Technology</b>								
5th year .....	372	2	374	333	2	335	.....	39
4th year .....	386	2	388	324	0	324	.....	64
3rd year .....	462	2	464	421	1	422	.....	42
2nd year .....	539	2	541	680	5	685	144	.....
1st year .....	640	3	643	715	7	722	79	.....
Adult specials .....	71	2	73	84	2	86	13	.....
Totals .....	2,470	13	2,483	2,557	17	2,574	91	.....
<b>Agriculture, Forestry, and Home Economics</b>								
Seniors .....	210	123	333	142	109	251	.....	82
Juniors .....	151	99	250	137	90	227	.....	23
Sophomores .....	245	165	410	232	138	370	.....	40
Freshmen .....	255	138	393	249	138	387	.....	6
Adult specials .....	57	27	84	69	34	103	19	.....
Totals .....	918	552	1,470	829	509	1,338	.....	132
<b>Law School</b>								
Seniors .....	68	1	69	77	0	77	8	.....
Juniors .....	67	0	67	54	0	54	.....	13
Sophomores .....	101	1	102	95	6	101	.....	1
Freshmen .....	134	6	140	142	4	146	6	.....
Adult specials .....	4	2	6	21	0	21	15	.....
Totals .....	374	10	384	389	10	399	15	.....
<b>Medical School</b>								
Interns .....	111	4	115	0	0	0	.....	115
Seniors .....	114	8	122	127	10	137	15	.....
Juniors .....	126	13	139	117	4	121	.....	18
Sophomores .....	118	4	122	108	7	115	.....	7
Freshmen .....	118	5	123	114	7	121	.....	2
Adult specials .....	5	0	5	2	0	2	.....	3
Totals .....	592	34	626	468	28	496	.....	130
<b>Medical Technology</b>								
Seniors .....	4	36	40	4	40	44	4	.....
Juniors .....	6	38	44	3	25	28	.....	16
Adult specials .....	0	4	4	1	8	9	.....	5
Totals .....	10	78	88	8	73	81	.....	7
<b>Occupational Therapy</b>								
Seniors .....	2	15	17	3	19	22	5	.....
Juniors .....	2	19	21	0	24	24	3	.....
Adult specials .....	0	0	0	0	0	0	.....	.....
Totals .....	4	34	38	3	43	46	8	.....

TABLE I.—Continued

College or School	1952-53			1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>Physical Therapy</b>								
Seniors .....	5	14	19	4	7	11	.....	8
Juniors .....	4	9	13	2	8	10	.....	3
Adult specials .....	0	0	0	0	0	0	.....	0
Totals .....	9	23	32	6	15	21	.....	11
<b>School of Public Health</b>								
Seniors .....	49	64	113	58	48	106	.....	7
Juniors .....	0	17	17	0	22	22	5	.....
Sophomores .....	1	16	17	0	18	18	1	.....
Adult specials .....	54	42	96	24	24	48	.....	48
Totals .....	104	139	243	82	112	194	.....	49
<b>School of Nursing</b>								
3rd year .....	1	120	121	1	126	127	6	.....
2nd year .....	3	77	80	1	82	83	3	.....
1st year .....	3	60	63	0	39	39	.....	24
Affiliates .....	0	113	113	0	95	95	.....	18
Adult specials .....	0	11	11	0	9	9	.....	2
Totals .....	7	381	388	2	351	353	.....	35
<b>School of Dentistry</b>								
Seniors .....	86	1	87	80	2	82	.....	5
Juniors .....	80	2	82	90	0	90	8	.....
Sophomores .....	88	0	88	88	2	90	2	.....
Freshmen .....	98	2	100	95	1	96	.....	4
Adult specials .....	3	0	3	0	0	0	.....	3
Totals .....	355	5	360	353	5	358	.....	2
<b>Dental Hygiene</b>								
2nd year .....	0	38	38	0	34	34	.....	4
1st year .....	0	42	42	0	38	38	.....	4
Adult specials .....	0	10	10	0	0	0	.....	10
Totals .....	0	90	90	0	72	72	.....	18
<b>Pharmacy</b>								
Seniors .....	60	3	63	69	3	72	9	.....
Juniors .....	77	6	83	58	4	62	.....	21
Sophomores .....	68	7	75	45	7	52	.....	23
Freshmen .....	71	8	79	60	4	64	.....	15
Adult specials .....	7	0	7	3	1	4	.....	3
Totals .....	283	24	307	235	19	254	.....	53
<b>College of Education</b>								
Seniors .....	253	528	781	266	522	788	7	.....
Juniors .....	230	410	640	186	434	620	.....	20
Sophomores .....	89	210	299	80	230	310	11	.....
Freshmen .....	56	150	206	70	205	275	69	.....
Adult specials .....	142	186	328	145	258	403	75	.....
Totals .....	770	1,484	2,254	747	1,649	2,396	142	.....
<b>Business Administration</b>								
Seniors .....	345	13	358	346	18	364	6	.....
Juniors .....	374	26	400	346	13	359	.....	41
Adult specials .....	37	5	42	42	6	48	6	.....
Totals .....	756	44	800	734	37	771	.....	29
<b>Graduate School</b>								
Minneapolis-St. Paul Campus .....	2,592	540	3,132	2,543	605	3,148	16	.....
Mayo Foundation .....	618	27	645	617	31	648	3	.....
Totals .....	3,210	567	3,777	3,160	636	3,796	19	.....
<b>Veterinary Medicine</b>								
Seniors .....	48	0	48	52	0	52	4	.....
Juniors .....	53	0	53	49	0	49	.....	4
Sophomores .....	48	0	48	46	1	47	.....	1
Freshmen .....	50	1	51	50	0	50	.....	1
Adult specials .....	1	0	1	2	0	2	1	.....
Totals .....	200	1	201	199	1	200	.....	1

TABLE I.—Continued

College or School	1952-53			1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>Duluth Branch</b>								
Seniors .....	161	68	229	196	92	288	59	.....
Juniors .....	186	105	291	205	57	262	.....	29
Sophomores .....	250	93	343	243	93	336	.....	7
Freshmen .....	380	211	591	357	227	584	.....	7
Adult specials .....	101	133	234	75	105	180	.....	54
<b>Totals .....</b>	<b>1,078</b>	<b>610</b>	<b>1,688</b>	<b>1,076</b>	<b>574</b>	<b>1,650</b>	.....	<b>38</b>
<b>Totals academic year .....</b>	<b>16,927</b>	<b>6,981</b>	<b>23,908</b>	<b>16,173</b>	<b>6,843</b>	<b>23,016</b>	.....	<b>892</b>
Less duplicates .....	1,609	607	2,216	658	284	942	.....	1,274
<b>Net totals academic year .....</b>	<b>15,318</b>	<b>6,374</b>	<b>21,692</b>	<b>15,515</b>	<b>6,559</b>	<b>22,074</b>	.....	<b>382</b>
<b>Summer Session</b>								
First term .....	4,771	2,572	7,343	4,266	2,609	6,875	.....	468
Second term .....	3,108	1,327	4,435	2,846	1,506	4,352	.....	83
<b>Totals .....</b>	<b>7,879</b>	<b>3,899</b>	<b>11,778</b>	<b>7,112</b>	<b>4,115</b>	<b>11,227</b>	.....	<b>551</b>
Less duplicates .....	2,310	963	3,273	2,190	1,087	3,277	.....	4
<b>Net totals, Summer Session .....</b>	<b>5,569</b>	<b>2,936</b>	<b>8,505</b>	<b>4,922</b>	<b>3,028</b>	<b>7,950</b>	.....	<b>555</b>
Mayo Foundation (graduates) .....	497	26	523	516	23	539	.....	16
<b>Net totals, Summer Session (including Mayo Foundation) .....</b>	<b>6,066</b>	<b>2,962</b>	<b>9,028</b>	<b>5,438</b>	<b>3,051</b>	<b>8,489</b>	.....	<b>539</b>
<b>Grand totals, Collegiate .....</b>	<b>21,384</b>	<b>9,336</b>	<b>30,720</b>	<b>20,953</b>	<b>9,610</b>	<b>30,563</b>	.....	<b>157</b>
Less duplicates .....	3,349	1,146	4,495	3,051	1,172	4,223	.....	272
<b>Net grand totals, collegiate .....</b>	<b>18,035</b>	<b>8,190</b>	<b>26,225</b>	<b>17,902</b>	<b>8,438</b>	<b>26,340</b>	.....	<b>115</b>

TABLE IA. VETERAN ENROLLMENT BY COLLEGES AND SCHOOLS, 1952-54

College or School	1952-53			1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>General College</b>								
Second year .....	21	2	23	11	0	11	.....	12
First year .....	15	0	15	14	1	15	.....	0
Adult specials .....	3	0	3	1	1	2	.....	1
<b>Totals .....</b>	<b>39</b>	<b>2</b>	<b>41</b>	<b>26</b>	<b>2</b>	<b>28</b>	.....	<b>13</b>
<b>University College</b>								
Seniors .....	6	0	6	4	0	4	.....	2
Juniors .....	2	0	2	0	0	0	.....	2
Sophomores .....	0	0	0	0	0	0	.....	0
Adult specials .....	0	0	0	2	0	2	.....	2
<b>Totals .....</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>6</b>	<b>0</b>	<b>6</b>	.....	<b>2</b>
<b>Science, Literature, and the Arts</b>								
Seniors .....	84	6	90	58	1	59	.....	31
Juniors .....	67	1	68	17	0	17	.....	51
Sophomores .....	58	3	61	27	1	28	.....	33
Freshmen .....	27	2	29	14	0	14	.....	15
Adult specials .....	25	1	26	22	2	24	.....	2
<b>Totals .....</b>	<b>261</b>	<b>13</b>	<b>274</b>	<b>138</b>	<b>4</b>	<b>142</b>	.....	<b>132</b>
<b>Institute of Technology</b>								
Fifth year .....	36	0	36	38	0	38	.....	2
Fourth year .....	50	0	50	32	0	32	.....	18
Third year .....	52	0	52	28	0	28	.....	24
Second year .....	38	0	38	22	0	22	.....	16
First year .....	19	0	19	21	0	21	.....	2
Adult specials .....	5	0	5	4	0	4	.....	1
<b>Totals .....</b>	<b>200</b>	<b>0</b>	<b>200</b>	<b>145</b>	<b>0</b>	<b>145</b>	.....	<b>55</b>

TABLE IA.—Continued

College or School	1952-53			1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>Agriculture, Forestry, and Home Economics</b>								
Seniors .....	34	2	36	17	1	18		18
Juniors .....	17	1	18	7	0	7		11
Sophomores .....	21	0	21	17	0	17		4
Freshmen .....	9	0	9	4	0	4		5
Adult specials .....	8	1	9	12	2	14	5	
Totals .....	89	4	93	57	3	60		33
<b>Law School</b>								
Seniors .....	8	0	8	4	0	4		4
Juniors .....	5	0	5	2	0	2		3
Sophomores .....	5	0	5	9	0	9	4	
Freshmen .....	10	0	10	9	0	9		1
Adult specials .....	0	0	0	1	0	1	1	
Totals .....	28	0	28	25	0	25		3
<b>Medical School</b>								
Seniors .....	5	0	5	12	0	12	7	
Juniors .....	15	1	16	10	0	10		6
Sophomores .....	14	0	14	4	0	4		10
Freshmen .....	6	0	6	4	0	4		2
Adult specials .....	0	0	0	0	0	0		0
Totals .....	40	1	41	30	0	30		11
<b>Medical and X-Ray Technology</b>								
Seniors .....	2	1	3	1	0	1		2
Juniors .....	2	0	2	0	1	1		1
Adult specials .....	0	0	0	0	0	0		0
Totals .....	4	1	5	1	1	2		3
<b>Occupational Therapy</b>								
Seniors .....	0	0	0	1	0	1	1	
Juniors .....	2	0	2	0	0	0		2
Adult specials .....	0	0	0	0	0	0		0
Totals .....	2	0	2	1	0	1		1
<b>Physical Therapy</b>								
Seniors .....	2	1	3	2	0	2		1
Juniors .....	2	1	3	0	1	1		2
Adult specials .....	0	0	0	0	0	0		0
Totals .....	4	2	6	2	1	3		3
<b>School of Public Health</b>								
Seniors .....	10	8	18	5	4	9		9
Juniors .....	0	1	1	0	0	0		1
Sophomores .....	0	0	0	0	1	1	1	
Adult specials .....	10	6	16	1	1	2		14
Totals .....	20	15	35	6	6	12		23
<b>School of Nursing</b>								
Third year .....	1	0	1	0	0	0		1
Second year .....	0	0	0	0	0	0		0
First year .....	0	0	0	0	0	0		0
Affiliates .....	0	0	0	0	0	0		0
Adult specials .....	0	1	1	0	1	1		0
Totals .....	1	1	2	0	1	1		1
<b>School of Dentistry</b>								
Seniors .....	6	0	6	8	0	8	2	
Juniors .....	9	0	9	10	0	10	1	
Sophomores .....	11	0	11	6	0	6		5
Freshmen .....	8	0	8	11	0	11	3	
Adult specials .....	0	0	0	0	0	0		0
Totals .....	34	0	34	35	0	35	1	

## THE PRESIDENT'S REPORT

TABLE IA.—Continued

College or School	1952-53			1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Dental Hygiene								
Second year	0	0	0	0	0	0	0	
First year	0	0	0	0	0	0	0	
Adult specials	0	0	0	0	0	0	0	
Totals	0	0	0	0	0	0	0	
Pharmacy								
Seniors	8	0	8	5	0	5		3
Juniors	7	0	7	5	0	5		2
Sophomores	8	1	9	3	1	4		5
Freshmen	0	0	0	0	0	0		0
Adult specials	0	0	0	0	0	0		0
Totals	23	1	24	13	1	14		10
College of Education								
Seniors	53	14	67	32	8	40		27
Juniors	24	1	25	14	2	16		9
Sophomores	8	0	8	9	2	11	3	
Freshmen	4	0	4	4	0	4		0
Adult specials	30	1	31	19	1	20		11
Totals	119	16	135	78	13	91		44
Business Administration								
Seniors	60	0	60	44	0	44		16
Juniors	42	1	43	18	0	18		25
Adult specials	1	0	1	5	1	6	5	
Totals	103	1	104	67	1	68		36
Graduate School (including Mayo Foundation)								
Minneapolis-St. Paul Campus	874	19	893	214	10	224		669
Mayo Foundation	383	1	384	324	2	326		58
Totals	1,257	20	1,277	538	12	550		727
Veterinary Medicine								
Seniors	3	0	3	11	0	11	8	
Juniors	12	0	12	8	0	8		4
Sophomores	11	0	11	9	0	9		2
Freshmen	8	0	8	5	0	5		3
Adult specials	0	0	0	0	0	0		0
Totals	34	0	34	33	0	33		1
Duluth Branch								
Seniors	39	0	39	27	1	28		11
Juniors	24	1	25	11	0	11		14
Sophomores	16	0	16	9	0	9		7
Freshmen	7	0	7	7	0	7		0
Adult specials	19	1	20	17	1	18		2
Totals	105	2	107	71	2	73		34
Totals academic year	1,988	78	2,066	1,272	47	1,319		747
Less duplicates	134	7	141	34	1	35		106
Net totals academic year	1,854	71	1,925	1,238	46	1,284		641
Summer Session								
First term	1,652	64	1,716	1,081	42	1,123		593
Second term	1,185	32	1,217	765	34	799		418
Totals	2,837	96	2,933	1,846	76	1,922		1,011
Less duplicates	956	24	980	579	22	601		379
Net totals, Summer Session	1,881	72	1,953	1,267	54	1,321		632
Mayo Foundation (graduates)	311	1	312	317	1	318	6	
Net totals, Summer Session (in- cluding Mayo Foundation)	2,192	73	2,265	1,584	55	1,639		626
Grand totals, collegiate	4,046	144	4,190	2,822	101	2,923		1,267
Less duplicates	891	28	919	387	20	407		512
Net grand totals, collegiate veterans	3,155	116	3,271	2,435	81	2,516		755

TABLE IIA. COLLEGIATE ENROLLMENT BY QUARTERS, 1952-53

College or School	First Term, Summer Session, 1952			Second Term, Summer Session, 1952			Fall			Winter			Spring			Total Individual Registration*		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
	General College .....	67	15	82	44	9	53	921	302	1,223	914	267	1,181	828	251	1,079	1,378	388
University College .....	9	8	17	7	2	9	27	22	49	28	22	50	26	24	50	37	31	68
Science, Literature, and the Arts Institute of Technology.....	819	563	1,382	591	324	915	3,332	2,047	5,379	3,223	1,889	5,112	3,016	1,773	4,789	4,939	2,883	7,822
Agriculture, Forestry, and Home Economics .....	466	5	471	316	1	317	2,227	10	2,237	2,053	9	2,062	1,900	6	1,906	2,602	17	2,619
Economics .....	131	128	259	93	51	144	836	531	1,367	756	472	1,228	677	437	1,114	977	625	1,602
Law School .....	14	0	14	18	0	18	350	9	359	331	10	341	321	10	331	370	10	380
Medicine .....	471	25	496	120	5	125	475	29	504	688	37	725	571	33	604	572	33	605
Medical Technology .....	2	7	9	4	9	13	8	70	78	7	62	69	6	57	63	15	74	89
Nursing and affiliates .....	2	175	177	2	175	177	5	278	283	3	259	262	4	226	230	8	408	416
Occupational Therapy .....	1	14	15	1	11	12	3	32	35	3	30	33	3	29	32	2	30	32
Physical Therapy .....	0	3	3	0	1	1	9	23	32	9	21	30	9	19	28	9	24	33
Public Health .....	37	104	141	33	58	91	96	97	193	89	96	185	86	93	179	112	214	326
Dentistry .....	56	0	56	30	0	30	355	4	359	343	3	346	338	4	342	344	5	349
Dental Hygiene .....	0	10	10	0	8	8	0	94	94	0	77	77	0	70	70	0	91	91
Pharmacy .....	25	2	27	17	2	19	253	21	274	244	19	263	231	18	249	286	25	311
Education .....	570	817	1,387	288	313	601	572	1,201	1,773	592	1,142	1,734	569	1,116	1,685	1,313	2,189	3,502
Business Administration .....	176	6	182	145	7	152	582	31	613	566	32	598	559	31	590	844	49	893
Veterinary Medicine .....	2	0	2	2	0	2	191	1	192	196	1	197	193	1	194	200	1	201
Graduates																		
Minneapolis-St. Paul Campus	1,637	418	2,055	1,142	173	1,315	2,128	405	2,533	2,030	386	2,416	2,017	388	2,405	3,706	875	4,581
Mayo Foundation .....	497	26	523	497	26	523	502	27	529	502	27	529	516	23	539	668	31	699
Duluth Branch .....	286	272	558	255	178	433	857	494	1,351	824	448	1,272	778	365	1,143	1,383	892	2,275
Totals .....	5,268	2,598	7,866	3,605	1,353	4,958	13,729	5,728	19,457	13,401	5,309	18,710	12,648	4,974	17,622	19,765	8,895	28,660
Less duplicates .....	50	68	118	15	8	23	186	80	266	198	91	289	214	99	313	1,730	705	2,435
Net totals .....	5,218	2,530	7,748	3,590	1,345	4,935	13,543	5,648	19,191	13,203	5,218	18,421	12,434	4,875	17,309	18,035	8,190	26,225

\* This represents a net count of individuals with duplicates deducted.

TABLE IIB. COLLEGIATE ENROLLMENT BY QUARTERS, 1953-54

College or School	First Term, Summer Session, 1953			Second Term, Summer Session, 1953			Fall			Winter			Spring			Total Individual Registration*		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
	General College .....	71	21	92	53	13	66	1,038	375	1,413	997	334	1,331	947	315	1,262	1,353	436
University College .....	4	7	11	2	2	4	33	27	60	40	29	69	45	26	71	55	39	94
Science, Literature, and the Arts Institute of Technology.....	775	571	1,346	539	343	882	3,356	1,999	5,355	3,157	1,864	5,021	3,079	1,705	4,784	4,469	2,674	7,143
Agriculture, Forestry, and Home Economics .....	401	1	402	278	2	280	2,459	14	2,473	2,254	13	2,267	2,143	17	2,160	2,628	18	2,646
Law School .....	137	132	269	88	40	128	797	540	1,337	742	540	1,282	671	521	1,192	885	587	1,472
Medicine .....	7	.....	7	4	.....	4	383	8	391	348	9	357	332	9	341	376	8	384
Medical Technology .....	342	18	360	2	.....	2	468	28	496	461	25	486	454	26	480	457	26	483
Nursing and affiliates .....	.....	13	13	1	11	12	7	68	75	6	63	69	4	52	56	8	70	78
Occupational Therapy .....	4	229	233	3	219	222	2	267	269	3	242	245	2	217	219	5	420	425
Physical Therapy .....	2	18	20	2	16	18	3	43	46	4	42	46	2	38	40	3	43	46
Public Health .....	.....	1	1	.....	.....	.....	6	16	22	5	13	18	5	13	18	6	13	19
Dentistry .....	34	67	101	31	63	94	78	75	153	74	83	157	76	86	162	87	175	262
Dental Hygiene .....	40	1	41	18	.....	18	355	5	360	351	5	356	346	5	351	345	4	349
Pharmacy .....	.....	7	7	.....	3	3	.....	73	73	.....	70	70	.....	61	61	.....	73	73
Education .....	43	6	49	35	4	39	226	17	243	210	13	223	201	14	215	248	21	269
Business Administration .....	474	833	1,307	276	398	674	585	1,362	1,947	582	1,333	1,915	581	1,301	1,882	1,250	2,353	3,603
Veterinary Medicine .....	156	10	166	129	6	135	566	28	594	585	27	612	576	30	606	768	41	809
Graduates	3	.....	3	.....	.....	.....	195	1	196	195	1	196	190	1	191	201	1	202
Minneapolis-St. Paul Campus	1,513	401	1,914	1,168	212	1,380	2,123	458	2,581	2,053	452	2,505	2,012	441	2,453	3,589	908	4,497
Mayo Foundation .....	516	23	539	516	23	539	551	27	578	573	30	603	596	27	623	648	33	681
Duluth Branch .....	260	273	533	217	174	391	936	502	1,438	893	475	1,368	861	396	1,257	1,299	863	2,162
Totals .....	4,782	2,632	7,414	3,362	1,529	4,891	14,167	5,933	20,100	13,533	5,663	19,196	13,123	5,301	18,424	18,680	8,806	27,486
Less duplicates .....	69	62	131	28	12	40	146	92	238	142	117	259	146	108	254	778	368	1,146
Net totals .....	4,713	2,570	7,283	3,334	1,517	4,851	14,021	5,841	19,862	13,391	5,546	18,937	12,977	5,193	18,170	17,902	8,438	26,340

\* This represents a net count of individuals with duplicates deducted.

TABLE III. SUB-COLLEGIATE ENROLLMENT, 1952-54

School or Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>School of Agriculture (St. Paul)</b>								
Seniors .....	36	18	54	42	14	56	2	.....
Juniors .....	89	22	111	110	25	135	24	.....
Freshmen .....	12	1	13	4	2	6	.....	7
Unclassed .....	19	7	26	26	7	33	7	.....
Total school registration.....	156	48	204	182	48	230	26	.....
<b>Northwest School and Station (Crookston)</b>								
Seniors .....	70	29	99	66	16	82	.....	17
Juniors .....	82	18	100	114	16	130	30	.....
Sophomores .....	108	17	125	95	24	119	.....	6
Freshmen .....	88	24	112	97	17	114	2	.....
Unclassed .....	2	.....	2	1	.....	1	.....	1
Total school registration.....	350	88	438	373	73	446	8	.....
<b>West Central School and Station (Morris)</b>								
Seniors .....	49	16	65	57	21	78	13	.....
Juniors .....	70	24	94	57	20	77	.....	17
Sophomores .....	63	21	84	67	26	93	9	.....
Freshmen .....	82	27	109	75	13	88	.....	21
Unclassed .....	5	3	8	3	5	8	.....	.....
Total school registration.....	269	91	360	259	85	344	.....	16
<b>North Central School and Station (Grand Rapids)</b>								
Seniors .....	14	.....	14	18	.....	18	4	.....
Juniors .....	17	.....	17	16	.....	16	.....	1
Sophomores .....	21	.....	21	20	.....	20	.....	1
Freshmen .....	14	.....	14	20	.....	20	6	.....
Unclassed .....	2	.....	2	3	.....	3	1	.....
Total school registration.....	68	.....	68	77	.....	77	9	.....
<b>Southern School and Station (Waseca)</b>								
Seniors .....	.....	.....	.....	11	3	14	14	.....
Juniors .....	.....	.....	.....	20	4	24	24	.....
Sophomores .....	.....	.....	.....	31	4	35	35	.....
Freshmen .....	42	.....	42	33	7	40	.....	2
Specials .....	.....	.....	.....	7	1	8	8	.....
Total school registration.....	42	.....	42	102	19	121	79	.....
University High School .....	202	183	385	212	201	413	28	.....
Nursery School and Kindergarten .....	105	88	193	128	118	246	53	.....
University Elementary School .....	71	77	148	77	70	147	.....	1
Totals .....	176	165	341	205	188	393	52	.....
Net totals, schools .....	1,263	575	1,838	1,410	614	2,024	186	.....
<b>Short Courses</b>								
<b>School of Agriculture (St. Paul)</b>								
Aircraft spraying and dusting .....	54	.....	54	72	1	73	19	.....
Alumni institute .....	389	327	716	.....	.....	.....	.....	716
Animal nutrition .....	245	.....	245	171	.....	171	.....	74
Artificial insemination .....	50	.....	50	.....	.....	.....	.....	50
Bankers agricultural credit conference .....	.....	.....	.....	192	9	201	201	.....
Beef cattle-grassland field day .....	.....	.....	.....	252	1	253	253	.....
Beekeepers short course .....	85	11	96	25	6	31	.....	65
Berry growers .....	52	4	56	61	3	64	8	.....
Boys State .....	270	.....	270	291	.....	291	21	.....
Canners and fieldmen .....	159	.....	159	134	.....	134	.....	25
Career days home economics workshop .....	.....	219	219	.....	200	200	.....	19
Chicago farmers tour .....	.....	.....	.....	65	10	75	75	.....
Dairy cattle judging contest .....	15	1	16	.....	.....	.....	.....	16
Dairy day .....	.....	.....	.....	250	.....	250	250	.....

TABLE III.—Continued

School or Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Dairy herd improvement	45	1	46	55	4	59	13	
Dairy products				436	3	439	439	
Department of Public Welfare Conference				75	35	110	110	
Dome Club	8	35	43					43
Editors				114	19	133	133	
Experiment Station Soil Conservation	32		32					32
Fair management	83	12	95	33		33		62
Farm and Home Week	1,500	1,000	2,500	903	538	1,441		1,059
Farm Bureau (women)		256	256		228	228		28
Farm fire prevention	30		30					30
Farm income tax	406	38	444	371	49	420		24
FFA convention				1,700		1,700	1,700	
Farm leaders from Europe		24	24					24
Fire service tr. assoc. conf.				30		30		30
Flock selecting				117		117		117
Flock selecting and pul- lorum testing agents	128	2	130	98		98		32
Flower arranging and judging				7	250	257	257	
Food and nutrition	8	8	16	9	7	16		
4-H Club Week	399	583	982	453	589	1,042	60	
Governors Committee on Youth	55	35	90					90
High temperature short time pasteurization	86		86					86
Home econ. teacher conf. Horticulture	181	203	384		350	350	350	384
Junior dairymen				31		31	31	
Liquefied petroleum gas service school	98		98	123		123	25	
Light horse				53	34	87		87
Lumbermen's four-week short course	45		45	47		47	2	
L-P gas				100		100	100	
Manufacture of dry milk	13		13					13
Marketing dairy products	35		35					35
Midland Co-op Wholesale conference				30		30	30	
Midwest poultry breeders				75	4	79	79	
Milk laboratory technician	23	1	24	25	7	32	8	
Minnesota purebred dairy cattle				16		16	16	
Minnesota state fire school	233		233	272		272	39	
Parents' day	49	58	107	93	102	195	88	
Poultry breeders	16	2	18					18
Rabbit breeders				38	12	50	50	
Retail seed dealers				93		93	93	
Rural state youth	105	70	175	68	26	94		81
Rural education for Latin America				18	5	23	23	
Safety specialists	34		34					34
School of Forestry 50th Anniversary				450	150	600	600	
School lunch workshop					47	47	47	
Seed improvement	25		25	25		25		
Soils and fertilizer	379		379	435	2	437	58	
Swinefeeders' day	316		316	348	3	351	35	
Vegetable growers	88	1	89					89
Veterinarians	231	1	232	128		128		104
Voc. agr. teachers' short course	532		532	383		383		149
Voc. agr. short course and FFA short course	1,800		1,800					1,800
Weed and seed inspector	109		109	129		129	20	
Welding				226		226	226	
Totals	8,411	2,892	11,303	9,120	2,694	11,814	511	
Northwest School of Agri- culture (Crookston)								
4-H Club	415	281	696	445	266	711	15	
Women's week		79	79		78	78		1
Totals	415	360	775	445	344	789	15	1

TABLE III.—Continued

School or Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
West Central School and Station (Morris)								
4-H Club	280	383	663	256	313	569		94
Women's week		284	284		291	291	7	
Totals	280	667	947	256	604	860	7	94
North Central School and Station (Grand Rapids)								
4-H Club	136	186	322	157	234	391	69	
Homemakers' camp		55	55		38	38		17
Totals	136	241	377	157	272	429	69	17
Southern School and Station (Waseca)								
Special welding				36		36	36	
Totals, short courses	9,242	4,160	13,402	10,014	3,914	13,928	526	
Net grand totals, schools and short courses	10,505	4,735	15,240	11,424	4,528	15,952	712	

TABLE IVA. EXTENSION ENROLLMENT, 1952-54

Department or Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General extension	6,563	4,821	11,384	6,583	5,139	11,722	338	
Extension short courses								
Advanced criminal law				33		33	33	
Advanced criminal pro.				63		63	63	
Administrators of Col. and Univ. Coun. Prog.				33	2	35	35	
American novel				47	37	84	84	
Anatomy and Medical Terms	8	88	96	4	70	74		22
Applied mortuary science	50	1	51					51
Basic criminal inv.				85		85	85	
Basic criminal law				8		8	8	
Basic criminal law, pro. and inv.				87	3	90	90	
Basic science for X-Ray tech.				2	38	40	40	
Basic criminal procedure				35	1	36	36	
Better letter course				15		15	15	
Business theory for secretaries					46	46	46	
C.A.R. Radio	22		22					22
Commercial pilots' ground school	157	5	162					162
CPA review				27		27	27	
CPS refresher					12	12	12	
CPS secretary		43	43					43
Dental assistants		29	29		6	6		23
Economic problems facing labor				4	13	17	17	
Efficient reading	28	57	85	24	1	25		60
Engines and Aircraft, Term I				20	2	22	22	
Engines and Aircraft, Term V				10	2	12	12	
Flight theory and anal. of flight man. term IV				5		5	5	
Great books	36	88	124					124
Group work executives and pro. directors				17	33	50	50	
Guidance through phy. ed.				6	54	60	60	
Home floral design		8	8					8
Instrument rating				8		8	8	
Insurance workshop				2	3	5	5	
Labor registration				52	12	64	64	
Leadership training in Duluth				34	11	45	45	
Man and scientific quest	90	68	158	74	36	110		48
Master accompanist	3	14	17					17
Master piano class	8	34	42					42
Mental deficiency I, II				50	98	148	148	

TABLE IVA.—Continued

Department or Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Meteorology of pilots' gr. school, term III				13		13	13	
Meteorology, air pilots' gr. school				9	1	10	10	
Municipal court procedure				86		86	86	
Nav. and Comp., term II				16		16	16	
Phy. ed. program inst.	2	58	60					60
Public speaking on labor law				18		18	18	
Public speaking on labor problems	43	7	50					50
Rapid reading	25	1	26					26
Swimming				28	34	62	62	
Training course for architects				1		1	1	
Union leadership				49	6	55	55	
Vocabulary building	5	13	18	17	22	39	21	
Voice lesson	1	2	3					3
Totals, short courses	478	516	994	982	543	1,525	531	
Correspondence study	3,945	2,255	6,200	3,039	2,473	5,512		688
Grand totals, extension	10,986	7,592	18,578	10,604	8,155	18,759	181	
Less duplicates	248	186	434	384	228	612	178	
Net grand totals, extension	10,738	7,406	18,144	10,220	7,927	18,147	3	

TABLE IVB. CENTER FOR CONTINUATION STUDY ENROLLMENT, 1952-54

Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Administrators of col. and univ. counsel prog.				33	2	35	35	
Advanced safety eng.				60		60	60	
Advanced social casework	7	16	23					23
Africa—area of political unrest				12	80	92	92	
Agency ownership	13		13					13
Aggressive casework in med. and psy. settings				13	22	35	35	
American Film Week				14	5	19	19	
Anesthesiology	65	2	67					67
Are we meeting the needs of expectant parents				1	95	96	96	
Art for schools in smaller communities					12	12	12	
Art inst. for rural ed.	2	64	66					66
Arthritis and allergy	35	2	37					37
Assessors' school	182	10	192	193	14	207	15	
Audio-visual inst.	115	16	131	80	9	89		42
Auto insurance	31	6	37					37
Business management in public health				27	4	31	31	
Cancer detection	18	1	19	39	1	40	21	
Cardiovascular disease	66		66	101	3	104	38	
Care of aged in institutional homes	39	63	102	40	76	116	14	
Casework in authoritative setting				12	17	29	29	
Child care institute	41	82	123	47	75	122		1
Child psychiatry				33	3	36	36	
City engineers	27		27	28		28	1	
City managers' school	13		13	16		16	3	
Civil engineering review				123		123	123	
Clinical chemistry	7		7					7
Clinical chemistry for medical tech.	8	83	91					91
Clinical dietetics		70	70		92	92	22	
Concrete conference	232		232	218		218		14
Co-op. editors	38	1	39					39
Co-op. educ. and organization	25		25					25
Coroners' problems				88	1	89	89	
Councilmen's school	40		40					40
Councilmen's-mayors'				29		29	29	

TABLE IVB.—Continued

Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Counseling of college students	29	14	43	23	5	28		15
Counseling of engineering and science students	19	1	20					20
Counseling foreign students				24	10	34	34	
Counseling for the clergy	97	6	103	59	7	66		37
Counseling the alcoholic	53	26	79	54	29	83	4	
County highway engineers	81		81	87		87	6	
Crown and bridge				11		11	11	
Dental assistants		52	52		96	96	44	
Dentistry				32		32	32	
Dentistry for children	20	1	21	15	1	16		5
P.G. dentistry for children	14		14					14
Dermatology for general physicians				59	4	63	63	
Development of prem. inf.		68	68					68
Diseases of the chest				13		13	13	
Drilling				116		116	116	
Educ. of children with hearing and speech hand.				18	113	131	131	
Educ. of physically handicapped children	20	84	104					104
Educational secretaries		92	92		94	94	2	
Electrical engineering review				65		65	65	
Electrical est. schools	113		113					113
Electrical est. schools, Marshall				12		12	12	
Electrocardiography	59	1	60	75	1	76	16	
Elementary school music				2	78	80	80	
Employment problems in industry	51	16	67					67
Emergency surg. for general physician				80		80	80	
Endocrinology for general physician	75	4	79					79
Endocrinology and metabolism, P.G.				108	10	118	118	
Endodontia	18		18	16	1	17		1
Engineers and sewer	4		4	2		2		2
European teachers in American studies				4	13	17	17	
Executive secretaries of coun. wel. boards	61	24	85	64	23	87	2	
Embalmers and mortuary administrators	33		33	58		58	25	
Eye, ear, nose, and throat				23		23	23	
Fidelity and insurance	24	2	26					26
Finance officers' school	51	9	60	41	16	57		3
Foundry safety and hygiene				23		23	23	
Fractures for general physicians				93		93	93	
Fractures and surg. of trauma	108		108					108
Fundamental adv. in int. med. for internists				68	1	69	69	
Freedom fair		129	129					129
Funeral director's apprentices	32	4	36	35	10	45	9	
Future of econ. sec.				57	27	84	84	
Gastroenterology	57	1	58					58
Gastro-intestinal roentgenology	166	3	169					169
Gynecology	46	6	52					52
Head nurse activities		104	104					104
Hematology for med. tech.				4	114	118	118	
Home bldg. problems	28		28	12		12		16
Hospital accounting institute	17	33	50	15	13	28		22
Hospital administration	45	58	103					103
Hospital administrators				48	65	113	113	
Hospital care for prematures					53	53	53	
Hospital librarians		57	57					57
Income tax trust for public accountants				103	4	107	107	
Indian institute	16	38	54					54
Indian rights and resources				36	21	57	57	
Industrial nursing	5	110	115	5	70	75		40
Industrial engineering workshop				13		13	13	
Industrial relations	210	10	220	153	2	155		65
Industrial relations labor conference	96	8	104	301	15	316	212	

TABLE IVB.—Continued

Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Insurance				36	2	38	38	
Insurance buyers' clinic	37	2	39	37	6	43	4	
Junior Red Cross	5	22	27					27
Labor institute				31	5	36	36	
Language arts	81	683	764	36	416	452		312
Legal course in income taxation	43	4	47					47
Management of the polio patient	24	1	25					25
Maternity and newborn nursing		102	102					102
Mechanical engineering review				99	1	100	100	
Medical econ. for phys.	47	2	49					49
Medical jurisprudence for general physicians				24	2	26	26	
Mental deficiency	48	106	154	50	98	148		6
Mid-Continent regional park and recreation	79	10	89					89
Middle East and S.E. Asia	3	47	50					50
Midwest College Education Conference	44	15	59					59
Military factors in foreign policy	36	22	58					58
Minnesota Vocational Coordinators' Conference				58	12	70	70	
Mining geology				209		209	209	
Mining symposium	559	1	560	539	1	540		20
Motel operation	22	16	38	16	9	25		13
Motor fleet supervisors	31		31					31
Motor vehicle maintenance				35		35	35	
Music for schools in small communities				2	33	35	35	
Music institute for rural educators		62	62					62
National resources				28	3	31	31	
Neurology for general physicians and spec.				27	1	28	28	
Nursing service adm.	2	83	85	5	91	96	11	
Nursing work simplification				2	129	131	131	
Obstetrics				60	1	61	61	
Office work simplification				186	8	194	194	
Opera				19	63	82	82	
Operating rm. sup. and inst.		35	35					35
Operative dentistry	43		43					43
Ophthalmology	36	1	37					37
Oral medical (diagnosis and pathology)				8		8	8	
Oral Medical Seminar	70	1	71					71
Oral surgery	19	1	20	18		18		2
Orientation directors				31	11	42	42	
Parents of deaf children of pre-school age				5	22	27	27	
Parent education leaders	8	56	64					64
Parent and family life education	3	101	104					
Pediatrics				109	6	115	115	
Pediatric neurology	60	9	69					69
Pemphigus and bullous dermatoses	24	2	26					26
Pharmacy	28	12	40					40
Phy. ed. at elementary level—Duluth	1	15	16					16
Polio nursing conf.					106	106	106	
Pre-service and in-service teachers' training				40	10	50	50	
Principles of social casework	15	14	29					29
Probation and parole wkrs.	78	17	95	68	19	87		8
Problems in juvenile delinquency	35	5	40	51	3	54	14	
Proctology	29		29	23		23		6
Prosthesis (full dent.)	32		32	19		19		13
Public health nurses		103	103	1	88	89		14
Public school law				209	5	214	214	
Puppetry	35	168	203					203
Radiation therapy				147	3	150	150	
Radiographic technic	7		7					7
Radio news	38		38	37	2	39	1	

TABLE IVB.—Continued

Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Radiology	15		15	28		28	13	
Recent advances in diagnosis	144	4	148					148
Recreation—hospital				40	43	83	83	
Referral problems in psychotherapy				24	19	43	43	
School in mental hyg.	14	23	37					37
Supervision in social casework				16	10	26	26	
Sewer school	69		69	69		69		
Social group work prin. for instit. personnel				5	14	19	19	
Soil mechanics and found. engineering				106		106	106	
Soils	126		126					126
Sterility and problems of reproduction				39	3	42	42	
Streamlining reporting to improve adm.				4	104	108	108	
Student supervision	8	17	25					25
Study and practice of oral medicine				36	1	37	37	
Surgery	104		104					104
Surgery for gen. phy.				91		91	91	
Supervision	21	60	81	74	100	174	93	
Supervisor personnel in cor. inst. of the Dept. of Public Welfare				61		61	61	
Teachers in area of practical nursing					30	30	30	
Techniques for office work cost reduction				24	1	25	25	
Team in medical and psychiatric settings	14	36	50					50
Top management for motor vehicle, fleet owners, and operators				26		26	26	
Training in employment re.	85	9	94					94
Trainers of comm. drivers	34		34					34
Treatment of diseases of chest	35		35					35
Tuberculosis control for lay persons	9	85	94	5	42	47		47
United Nations Charter review				55	101	156	156	
Urology for gen. phys.				29		29	29	
Water school	86		86	72		72		14
Water and engineers	4		4	2		2		2
Water engineers and sewer	9		9					9
Water and sewer schools	38		38	86		86	48	
Work simplification	59	3	62					62
Work methods and work measurements	159	1	160					160
X-ray technology	3	36	39	3	85	88	49	
<b>Totals</b>	<b>5,310</b>	<b>3,369</b>	<b>8,679</b>	<b>6,401</b>	<b>3,218</b>	<b>9,619</b>	<b>940</b>	

TABLE V. ENROLLMENT SUMMARY, 1952-54

School or Course	Year 1952-53			Year 1953-54			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Collegiate students	18,035	8,190	26,225	17,902	8,438	26,340	115	
Sub-collegiate students	10,505	4,735	15,240	11,424	4,528	15,952	712	
<b>Totals</b>	<b>28,540</b>	<b>12,925</b>	<b>41,465</b>	<b>29,326</b>	<b>12,966</b>	<b>42,292</b>	<b>827</b>	
Less duplicates								
<b>Net totals</b>	<b>28,540</b>	<b>12,925</b>	<b>41,465</b>	<b>29,326</b>	<b>12,966</b>	<b>42,292</b>	<b>827</b>	
Extension students	10,738	7,406	18,144	10,220	7,927	18,147		3
Center for Continuation Study	5,310	3,369	8,679	6,401	3,218	9,619	940	
<b>Grand totals</b>	<b>44,588</b>	<b>23,700</b>	<b>68,288</b>	<b>45,947</b>	<b>24,111</b>	<b>70,058</b>	<b>1,770</b>	
Less duplicates	1,521	819	2,340	1,564	965	2,529	189	
<b>Net grand totals</b>	<b>43,067</b>	<b>22,881</b>	<b>65,948</b>	<b>44,383</b>	<b>23,146</b>	<b>67,529</b>	<b>1,581</b>	

## THE PRESIDENT'S REPORT

TABLE VI. COMPARATIVE ENROLLMENT FIGURES, 1952-54

Instructional Unit	1952-53			1953-54			Gain		Loss	
	M	W	T	M	W	T	M	W	M	W
General College .....	1,333	380	1,713	1,308	430	1,738	.....	50	25	.....
University College .....	37	28	65	56	37	93	.....	19	9	.....
Science, Literature, and the Arts .....	4,417	2,484	6,901	3,961	2,225	6,186	.....	.....	456	259
Institute of Technology .....	2,470	13	2,483	2,557	17	2,574	87	4	.....	.....
Agr., For., Home Ec., and Vet. Medicine (including schools of ag. and ag. short courses) .....	11,245	4,940	16,185	12,035	4,649	16,684	790	.....	.....	291
Law .....	374	10	384	389	10	399	15	.....	.....	.....
Medicine (including Med. Tech., Nursing, Phys. and Occup. Therapy, and Public Health) .....	726	689	1,415	569	622	1,191	.....	.....	157	67
Dentistry (incl. Dent. Hyg.) .....	355	95	450	353	77	430	.....	.....	2	18
Pharmacy .....	283	24	307	235	19	254	.....	.....	48	5
Education (Including High School, Nursery School and Kindergarten, and Elementary School) .....	1,148	1,832	2,980	1,164	2,038	3,202	16	206	.....	.....
Business Administration .....	756	44	800	734	37	771	.....	.....	22	7
Graduate School (including Mayo Foundation) .....	3,210	567	3,777	3,160	636	3,796	.....	69	50	.....
Duluth Branch .....	1,078	610	1,688	1,076	574	1,650	.....	.....	2	36
Summer Session (net) .....	6,066	2,962	9,028	5,438	3,051	8,489	.....	89	628	.....
Totals .....	33,498	14,678	48,176	33,035	14,422	47,457	.....	.....	463	256
Less duplicates .....	4,958	1,753	6,711	3,709	1,456	5,165	.....	.....	1,249	297
Net totals .....	28,540	12,925	41,465	29,326	12,966	42,292	786	41	.....	.....
Extension										
General extension .....	6,563	4,821	11,384	6,583	5,139	11,722	20	318	.....	.....
Short courses .....	478	516	994	982	543	1,525	504	27	.....	.....
Correspondence study .....	3,945	2,255	6,200	3,039	2,473	5,512	.....	218	906	.....
Totals .....	10,986	7,592	18,578	10,604	8,155	18,759	.....	563	382	.....
Less duplicates .....	248	186	434	384	228	612	136	42	.....	.....
Net totals .....	10,738	7,406	18,144	10,220	7,927	18,147	.....	521	518	.....
Center for Continuation Study .....	5,310	3,369	8,679	6,401	3,218	9,619	1,091	.....	.....	151
Summary:										
Totals, resident students .....	28,540	12,925	41,465	29,326	12,966	42,292	786	41	.....	.....
Totals, extension students .....	10,738	7,406	18,144	10,220	7,927	18,147	.....	521	518	.....
Totals, Center for Continuation Study .....	5,310	3,369	8,679	6,401	3,218	9,619	1,091	.....	.....	151
Grand totals .....	44,588	23,700	68,288	45,947	24,111	70,058	1,359	411	.....	.....
Less duplicates .....	1,521	819	2,340	1,564	965	2,529	43	146	.....	.....
Net grand totals .....	43,067	22,881	65,948	44,383	23,146	67,529	1,316	265	.....	.....

TABLE VIIA. DEGREES CONFERRED, 1952-54

College and Degree	Year 1952-53			Year 1953-54		
	Men	Women	Total	Men	Women	Total
Science, Literature, and the Arts						
B.A. <i>summa cum laude</i> .....	5	3	8	5	3	8
B.A. <i>magna cum laude</i> .....	31	29	60	36	16	52
B.A. <i>cum laude</i> .....	39	32	71	57	23	80
B.A. .....	387	173	560	442	157	599
B.S. <i>magna cum laude</i> .....	.....	2	2	.....	.....	.....
B.S. <i>cum laude</i> .....	.....	.....	.....	.....	.....	.....
B.S. in library science <i>cum laude</i> .....	1	1	2	1	1	2
B.S. .....	1	9	10	1	3	4
B.S. in library science .....	9	21	30	6	13	19
Associate in liberal arts .....	37	54	91	27	36	63

TABLE VIIA.—Continued

College and Degree	Year 1952-53			Year 1953-54		
	Men	Women	Total	Men	Women	Total
Institute of Technology						
B.S. with high distinction	18		18	15		15
B.S. with distinction	32		32	36		36
B.S.	17		17	17		17
Bachelor of aeronautical engineering with high distinction	1		1	2		2
Bachelor of aeronautical engineering with distinction	4		4	2		2
Bachelor of aeronautical engineering	10		10	13		13
Bachelor of agricultural engineering with high distinction	1		1			
Bachelor of agricultural engineering with distinction	1		1			
Bachelor of agricultural engineering	10		10	4		4
Bachelor of architecture with high distinction				1		1
Bachelor of architecture with distinction	4		4	4		4
Bachelor of architecture	26		26	12		12
Bachelor of civil engineering with high distinction	3		3	2		2
Bachelor of civil engineering with distinction	6		6	10		10
Bachelor of civil engineering	49		49	34		34
Civil engineer	1		1			
Electrical engineer				1		1
Bachelor of electrical engineering with high distinction	3		3	4		4
Bachelor of electrical engineering with distinction	7		7	3		3
Bachelor of electrical engineering	37		37	36		36
Bachelor of engineering mathematics or applied	3		3	1		1
Bachelor of industrial engineering with high distinction	1		1			
Bachelor of industrial engineering with distinction	4		4	2		2
Bachelor of industrial engineering	12		12	16		16
Mechanical engineer				1		1
Bachelor of mechanical engineering with high distinction	2		2	1		1
Bachelor of mechanical engineering with distinction	13		13	7		7
Bachelor of mechanical engineering	67		67	48		48
Bachelor of chemical engineering with high distinction	4		4	1		1
Bachelor of chemical engineering with distinction	3		3	2		2
Bachelor of chemical engineering	15		15	15		15
Bachelor of chemistry	4		4	1		1
Bachelor of physics with distinction	1		1			
Bachelor of physics	2		2	1		1
Bachelor of geological engineering	3		3	4		4
Metallurgical engineer	1		1			
Bachelor of metallurgical engineering with distinction				1		1
Bachelor of metallurgical engineering	6		6	4		4
Bachelor of geophysics	1		1			
Bachelor of mining engineering with distinction				1		1
Bachelor of mining engineering	3		3	7		7
Bachelor of petroleum engineering with distinction				1		1
Bachelor of petroleum engineering	3		3	2		2
Agriculture, Forestry, and Home Economics						
B.S. with high distinction (agriculture)				1		1
B.S. with distinction (agriculture)	5		5	5		5
B.S. (agriculture)	60	1	61	50	2	52
B.S. with distinction (fish and wildlife management)	1		1	1		1
B.S. (fish and wildlife management)	3		3	5		5
B.S. with distinction (food technology)	1		1	1		1
B.S. (food technology)	1		1			
B.S. with high distinction (forestry)	1		1	1		1
B.S. with distinction (forestry)	5		5	2		2
B.S. (forestry)	34		34	27		27

TABLE VIII.—Continued

College and Degree	Year 1952-53			Year 1953-54		
	Men	Women	Total	Men	Women	Total
B.S. with high distinction (home economics)		1	1		2	2
B.S. with distinction (home economics)		12	12		7	7
B.S. (home economics)		44	44	1	27	28
B.S. with high distinction (science specialization)	1		1			
B.S. with distinction (science specialization)	1	1	2	1		1
B.S. (science specialization)	1		1	2		2
Veterinary Medicine						
Doctor of veterinary medicine	48		48	52		52
B.S. with high distinction	5		5	2		2
B.S. with distinction	6		6	4	1	5
B.S.	42		42	20		20
Agriculture and Education						
B.S. with high distinction (agricultural education)				1		1
B.S. with distinction (agricultural education)	2		2	2		2
B.S. (agricultural education)	26	1	27	29		29
B.S. with high distinction (home economics education)		1	1		2	2
B.S. with distinction (home economics education)		5	5		8	8
B.S. (home economics education)		30	30		31	31
Agriculture and Business Administration						
Bachelor of agricultural business administration	2		2	1		1
Law School						
Master of laws				1		1
Bachelor of laws	76	1	77	81		81
Bachelor of science in law	47		47	41	2	43
College of Medical Sciences						
Master of nursing administration		5	5		3	3
Master of public health	16	7	23	11	12	23
Master of hospital administration	21		21	26	2	28
Doctor of medicine	221	12	233	122	11	133
B.S. (medicine)	77	5	82	67	2	69
B.S. with high distinction (medical technology)	1	4	5		1	1
B.S. with distinction (medical technology)		3	3		5	5
B.S. (medical technology)	1	24	25	3	21	24
B.S. with high distinction (occupational therapy)		1	1		1	1
B.S. with distinction (occupational therapy)		3	3		4	4
B.S. (occupational therapy)	1	8	9	2	13	15
B.S. with high distinction (physical therapy)		1	1		2	2
B.S. with distinction (physical therapy)		1	1	3	1	4
B.S. (physical therapy)	5	10	15	2	4	6
B.S. with high distinction (public health nursing)		2	2		2	2
B.S. with distinction (public health nursing)		8	8		3	3
B.S. (public health nursing)		18	18		19	19
B.S. in professional nursing with high distinction		2	2		8	8
B.S. in professional nursing with distinction		12	12		12	12
B.S. in professional nursing		38	38		51	51
Graduate in nursing		5	5		1	1
Dentistry						
Doctor of dental surgery	84		84	80	1	81
Graduate dental hygienist		32	32		34	34
Bachelor of science in dentistry	48		48	55	2	57
Pharmacy						
B.S. in pharmacy	42	3	45	67	3	70
Education						
Master of education	30	11	41	33	17	50
B.S. with high distinction	4	15	19	3	28	31
B.S. with distinction	22	87	109	28	62	90
B.S.	133	285	418	131	270	401
B.S. in library science	2	11	13		11	11
School of Business Administration						
B.B.A. with high distinction	6		6	3	1	4
B.B.A. with distinction	26	4	30	19	1	20

TABLE VIIA.—Continued

College and Degree	Year 1952-53			Year 1953-54		
	Men	Women	Total	Men	Women	Total
B.B.A.	209	10	219	217	10	227
B.S. in economics with high distinction	2		2	2		2
B.S. in economics with distinction	3		3			
B.S. in economics	8		8	11	4	15
University College						
B.S. magna cum laude		1	1			
B.S. cum laude				1		1
B.S.	8	1	9	9		9
B.A. summa cum laude		1	1			
B.A. cum laude	1	2	3			
B.A.	6	6	12	10	6	16
General College						
Associate in arts	104	26	130	125	34	159
Graduate School						
Master of arts	374	116	490	264	84	348
Master of fine arts	1		1	1	1	2
Master of forestry	8		8	3		3
Master of arts in public administration	6	1	7	9	1	10
Master of business administration	5	1	6	7		7
Master of science	116	17	133	97	17	114
M.S. in aeronautical engineering	10		10	4		4
M.S. in agricultural engineering				2		2
M.S. in chemical engineering	4		4	6		6
M.S. in civil engineering	17		17	11		11
M.S. in electrical engineering	5		5	4		4
M.S. in mechanical engineering	10		10	11		11
M.S. in mining engineering	1		1			
M.S. in anesthesiology	4		4			
M.S. in dental surgery	1		1	3		3
M.S. in industrial engineering				1		1
M.S. in dentistry	2		2	5		5
M.S. in dermatology and syphilology	1		1	4		4
M.S. in medicine	14		14	15	1	16
M.S. in neurology	1		1	1		1
M.S. in neurological surgery	2		2			
M.S. in neurosurgery				1		1
M.S. in obstetrics and gynecology	1		1	1		1
M.S. in ophthalmology	8		8	1		1
M.S. in orthopedics				1		1
M.S. in orthopedic surgery				3		3
M.S. in otolaryngology and rhinology						
M.S. in pathology	5	1	6			
M.S. in pediatrics	4		4	3		3
M.S. in physical medicine	2		2			
M.S. in physiology				1		1
M.S. in plastic surgery	2		2	2		2
M.S. in proctology				1		1
M.S. in psychiatry						
M.S. in radiology	4		4	6		6
M.S. in surgery	21		21	13		13
M.S. in urology	6		6	1		1
Master of social work	20	15	35	11	18	29
Doctor of philosophy	171	15	186	229	13	242
Ph.D. in cancer biology	1		1			
Ph.D. in dermatology and syphilology	1		1			
Ph.D. in medicine	1		1	2		2
Ph.D. in neurology	2		2			
Ph.D. in neurosurgery	1		1			
Ph.D. in ophthalmology						
Ph.D. in pathology	1		1	1		1
Ph.D. in radiology	1		1			
Ph.D. in surgery	6		6	5		5
Ph.D. in physiology	5		5	2		2
Ph.D. in obstetrics and gynecology				1		1
Ph.D. in physical medicine				1		1
Duluth Branch						
B.A. cum laude	4	1	5	3	1	4
B.A.	80	8	88	88	21	109
B.S. cum laude	3	14	17	3	11	14
B.S.	31	57	88	27	58	85
Associate in arts		3	3	5	6	11
Mortuary Science						
Associate in mortuary science	9		9	21		21
Grand totals	3,309	1,334	4,643	3,129	1,228	4,357

TABLE VIII. CERTIFICATES CONFERRED, 1952-54

School, Division, or Course	Year 1952-53			Year 1953-54		
	Men	Women	Total	Men	Women	Total
School of Agriculture (St. Paul)	36	5	41	38	4	42
Special Certificate for Swedish exchange students				7		7
Practical and home management					10	10
Food technician					1	1
Extension	36	5	41	53	6	59
Applied mortuary science	3		3			
Dental assistants					17	17
Practical nursing		55	55		20	20
Public health nursing		69	69		27	27
Psychiatric nursing					6	6
Technical aid certificate	49		49	25	1	26
North Central School and Station (Grand Rapids)	2		2	18		18
Special equivalency				2		2
Special				3		3
Northwest School and Station (Crookston)	70	30	100	62	16	78
Southern School (Waseca)				11	3	14
West Central School and Station (Morris)	50	16	66	50	24	74
University High School	34	23	57	34	28	62
Totals	280	203	483	303	163	466

TABLE VIII. STUDENTS ENTERED FROM HIGH SCHOOLS, 1952-53

Entrants From	General College	S., L., and A.	Inst. of Tech.	A., F., and H.E.	Nursing	Dental Hygiene	Pharmacy	Education	Duluth	Totals
Minneapolis public schools	349	576	127	71	10	8	12	76	3	1,232
St. Paul public schools	120	156	72	20	2	2	2	31	3	408
Other Minnesota high schools	226	637	242	200	4	9	20	56	404	1,798
Minnesota private schools	71	153	33	20	0	1	5	18	31	332
Totals from Minnesota	766	1,522	474	311	16	20	39	181	441	3,770
Other states	29	152	34	18	2	9	2	10	41	297
Foreign countries	0	8	4	1	0	0	1	0	3	17
Totals	795	1,682	512	330	18	29	42	191	485	4,084
Special students	25	33	6	2	2	0	0	1	26	95
Grand totals	820	1,715	518	332	20	29	42	192	511	4,179

TABLE VIII. STUDENTS ENTERED FROM HIGH SCHOOLS, 1953-54

Entrants From	General College	S., L., and A.	Inst. of Tech.	A., F., and H.E.	Nursing	Dental Hygiene	Pharmacy	Education	Duluth	Totals
Minneapolis public schools	350	536	159	58	4	5	6	99	1	1,218
St. Paul public schools	147	186	101	33	2	3	4	35		511
Other Minnesota high schools	217	609	236	206	5	8	17	81	439	1,818
Minnesota private schools	106	149	46	24			5	11	22	363
Totals from Minnesota	820	1,480	542	321	11	16	32	226	462	3,910
Other states and territories	53	146	43	16	1	4	1	14	25	303
Foreign countries	1	2	1					1	1	6
Totals	874	1,628	586	337	12	20	33	241	488	4,219
Special students	33	25	4	7				2	18	89
Grand totals	907	1,653	590	344	12	20	33	243	506	4,308

TABLE IXA. SUMMARY OF STUDENTS ENTERED WITH ADVANCED STANDING, 1952-53

Entrants From	General College	Univ. College	S., L., and A.	Inst. of Tech.	A., F., and H.E.	Law	Medicine	Medical Tech.	Public Health	Occup. Therapy	Phys. Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business	Vet. Medicine	Duluth	Totals
Institutions in Minnesota	40	270	90	79	24	17	3	15	1	32	22	5	11	141	41	1	83	875		
Institutions in other states	16	1 237	67	38	17	6	7	50	5	10	17	4	3	96	34	14	52	674		
Institutions in foreign countries		17	3	4	1			3			6		2	1	2	1	1	41		
Totals	58	1 524	160	121	42	23	10	68	6	42	45	9	16	238	77	16	136	1,590		
Special students	3	130	22	10	1		1	33		3	2		1	100	11	1	19	337		
Grand totals	59	1 654	182	131	43	23	11	101	6	45	47	9	17	338	88	17	155	1,927		

TABLE IXB. SUMMARY OF STUDENTS ENTERED WITH ADVANCED STANDING, 1953-54

Entrants From	General College	Univ. College	S., L., and A.	Inst. of Tech.	A., F., and H.E.	Law	Medicine	Medical Tech.	Public Health	Occup. Therapy	Phys. Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business	Vet. Medicine	Duluth	Totals
Institutions in Minnesota	53	2 270	88	74	26	23	1	13			11	22	2	8	117	26		70	806	
Institutions in other states	23	2 193	44	43	17	1	2	37		4	8	20	4	2	110	18	11	34	573	
Institutions in foreign countries	1	17	16	5				4						2	4		3		52	
Totals	77	4 480	148	122	43	24	3	54		4	19	42	6	12	231	44	14	104	1,431	
Special students	3	143	25	9	9	3	2	33						1	137	15		38	418	
Grand totals	80	4 623	173	131	52	27	5	87		4	19	42	6	13	368	59	14	142	1,849	

TABLE XA. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF STUDENTS OF COLLEGIATE GRADE  
(OTHER THAN SUMMER SESSION), 1952-53

	General College	Univ. College	S., L., and A.	Inst. of Tech.	A., F., and H.E.	Law	Medicine	Medical Tech.	Public Health	Occup. Therapy	Phys. Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business	Graduate	Vet. Medicine	Duluth	Duplicates	Totals	
Counties in Minnesota																							
Hennepin .....	1,023	31	3,265	955	415	169	227	30	55	16	8	96	79	32	104	916	338	781	20	9	932	8,569	
Ramsey .....	366	12	1,216	487	179	60	111	12	15	8	2	31	51	13	33	394	148	393	13	7	357	3,551	
Other Minnesota counties	295	19	1,837	845	778	125	240	30	39	10	15	158	171	20	148	695	239	750	115	1,495	769	8,024	
Totals .....	1,684	62	6,318	2,287	1,372	354	578	72	109	34	25	285	301	65	285	2,005	725	1,924	148	1,511	2,058	20,144	
Other states	25	3	528	178	81	24	45	14	109	4	6	102	49	24	18	226	71	1,373	48	23	136	2,951	
Foreign countries	1	0	37	15	9	4	2	1	25	0	1	0	8	1	3	10	2	426	2	0	13	547	
No information	3	0	18	3	8	2	1	1	0	0	0	1	2	0	1	13	2	54	3	154	9	266	
Grand totals .....	1,713	65	6,901	2,483	1,470	384	626	88	243	38	32	388	360	90	307	2,254	800	3,777	201	1,688	2,216	23,908	

TABLE XB. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF STUDENTS OF COLLEGIATE GRADE  
(OTHER THAN SUMMER SESSION), 1953-54

	General College	Univ. College	S., L., and A.	Inst. of Tech.	A., F., and H.E.	Law	Medicine	Medical Tech.	Public Health	Occup. Therapy	Phys. Therapy	Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business	Graduate	Vet. Medicine	Duluth	Duplicates	Totals	
Counties in Minnesota																							
Hennepin .....	1,033	40	2,923	960	338	163	179	31	25	15	5	90	67	23	80	1,041	328	790	18	4	329	8,153	
Ramsey .....	377	12	1,053	482	154	69	79	11	11	10	1	27	45	11	39	392	127	422	20	3	132	3,345	
Other Minnesota counties	298	32	1,704	921	763	130	201	27	49	17	8	144	171	19	116	723	254	788	106	1,447	416	7,918	
Totals .....	1,708	84	5,680	2,363	1,255	362	459	69	85	42	14	261	283	53	235	2,156	709	2,000	144	1,454	877	19,416	
Other states and territories	28	9	471	182	76	35	32	11	95	4	6	91	68	18	17	229	60	1,244	54	23	55	2,753	
Foreign countries	2		34	28	7	2	5	1	14		1	1	7	1	2	11	2	467	2	3	3	590	
No information			1	1														85		170	7	257	
Grand totals .....	1,738	93	6,186	2,574	1,338	399	496	81	194	46	21	353	358	72	254	2,396	771	3,796	200	1,650	942	23,016	

## MINNESOTA STUDENT UNIONS

This biennium was the period of self examination of the three Unions by both students and staff. With new personnel on the Union Boards and new personnel on the staff the time was ideal to study ways of making improvements and to consider whether or not the Unions were fulfilling the purpose for which they were designed to serve.

**Coffman Memorial Union**—Through consultation with the Union personnel staff and with the University Administration it was apparent there were two needs regarding staff organization. First, all members of the staff were not only responsible, but reported directly to the director of student unions—an awkward situation from an administrative and supervisory level. With suggestions from Union Board members, staff, and University administrators, a plan was devised and approved whereby the personnel of the Bowling Alley, Billiard Room, and Game Room were placed under the direction of the assistant to the director along with some other administrative functions. A program director was placed in charge of the program staff. At the close of the biennium it was evident that these changes were prudent.

A financial study was made of anticipated income and expenditures for the next 15 years. The results of this study showed that the increased cost of operation and the lack of a depreciation reserve overshadowed the anticipated increased income from enrollment.

A custodial survey of the entire Union was made by the Physical Plant Department. This resulted in better use of custodial manpower and better appearance of the building.

With the change in plan of distribution of the *Minnesota Daily* from the Post Office boxes to various locations on the Campus there were a number of questions raised about the Union as a whole. Since the Union had been in operation over a decade various opinions and attitudes had developed among the student body. The Union Board of Governors asked for assistance from the President's Office to explore this matter. A Committee composed of students and staff representing student interests and those departments housed in the Union was formed for the purpose of self-evaluation of the Union and the Union program. Professor Theodore Caplow of the Sociology Department was assigned to assist this Committee and to make such surveys and studies as the Committee felt would be helpful.

A traffic check of the building revealed that students having classes in Folwell, Cooke, and Peik Halls made considerable use of the Union regardless of the distance that they had to travel. Through a questionnaire the students had a free hand to criticize the Union in any form or manner. The results showed that the students were pleased with the program in the Union and the operation as a whole. Some minor improvements resulted from the suggestions and criticisms. The major complaint concerned the Commuters Lunchroom, both from the standpoint of appearance and location. This presented a real problem because the cost of improving this sub-basement area was beyond expectations. A study revealed also that the cost of operation of the post office boxes was high in comparison to the U.S. Mail. In view of these factors, together with a need for additional space for the Artscraft Shop, a plan was devised whereby the post office boxes would be discontinued and the Artscraft Shop moved to the old Commuters Lunchroom, thus providing two new areas for commuters on the ground floor. Allotments of \$17,000 from the Union Board of Governors and \$6,800 from the University Administration made the necessary moves feasible. Plans were underway in the summer of 1954 to complete these moves so as to open the new commuters area by the opening of the fall quarter, 1954.

Each year the Union is being called upon to serve more individuals and groups. During the last biennium there were 4,900 groups with an attendance of over 275,000 using the facilities for meetings and other activities. These figures do not include individuals using the Campus Club, the Cafeteria, noon luncheons, or participants in the Union program. Neither do they include the many individuals who use the Union for individual recreational activities such as bowling, billiards, lounging, etc.

**Coffman Union Board of Governors**—Along with the various studies being made of the Union, the Union Board undertook a self-examination. The results produced a revised up-to-date Constitution and a plan whereby the members became sponsors of nine major program areas.

Delegates took an active part in both the regional and national meeting of the Association of College Unions, the latter of which was discontinued on a student basis.

The Honorable Ray J. Quinlivan, chairman of the University Board of Regents was made the first Honorary Member of the Union Board of Governors.

Over 75 former Union Board members attended the first annual Christmas Get-Together.

During this biennium there was vigorous participation in the Union affairs by alumni, faculty, students, and Board members.

**Program Office**—Over 149,100 students participated in the Union Activity Program during this period. As many as 4,200 individuals attended the 1953 Homecoming Dance in which the entire Union and Armory were used. The dance area as a whole was well attended while there was a slight decline in the social skills area, which includes such activities as Charm Incorporated, Toastmasters, and Coffee Hours.

The Fine Arts Program showed a marked improvement. In addition to the many fine art exhibits there were a number of forums sponsored jointly by the Humanities Division and the Union Board.

The Minnesota Union Bowling Team won the 1954 Big Ten Bowling Tournament. The individual National Three Cushion Billiard Championship was also won by a Minnesota team member.

WMMR completed the installation of new equipment and looks forward to a new era in the radio voice of the students.

The Outing Area Committee visited the University of Wisconsin Hoofers Club and returned to enthusiastically form the Ski-U-Rovers. This neophyte group may provide the answer to the long sought outings program. The Union Board sponsored a foreign students' program and gave assistance to the graduate students in their Folwell Hall Graduate Common Room program.

There was an increase in participation of 7 per cent in the second year of the biennium. The entire two-year period was marked by successful events in a stable program.

**St. Paul Campus Union**—Considerable progress was made during the biennium toward the development of the new St. Paul Campus Union. The plans were approved by the Building Committee. The Board of Regents approved the location of the site. The Student Council on the St. Paul Campus held a Fun Fair from which \$500 was cleared and donated to the building fund. This was followed by the acceptance of the general chairmanship by President Emeritus Walter C. Coffey to head the fund drive for the new building. Faculty, staff, and students contributed to this drive. Substantial contributions were received also from business firms and friends of the University. With \$350,000 on hand, a goal of \$300,000 was set by the Fund Committee to complete the amount required for the erection of the first unit of the building. At the close of this biennium the half-way mark (\$150,000) of the drive had been reached.

In its temporary quarters (Old Dairy Hall), the Union continued to serve as best it could the increased demands for service and program. Over 27,400 students participated in the program during these two years. Approximately 120 students received merit awards for committee service annually. The Union Board took an active part in the affairs on both campuses and participated in the regional meeting of the Association of College Unions held at the University of Manitoba.

Heavy building traffic was again felt. Over 27,000 persons used the rooms for conferences, group meetings, and activities. The Union operated 310 days a year from 7:30 a.m. to 10:00 p.m. with the exception of more limited hours on Sunday.

Coffee Hours, Open Houses, and Toastmasters continued to have the largest attendance. The graduate students' program sponsored by the Union Board continued to grow.

The biggest question in the minds of students, staff, and faculty is how soon the necessary funds can be secured to enable construction of the new building to begin.

**University Village Union**—Under the direction of the Village Union Board of Governors and the management of a University administrative fellow, the Village Union Play Center continued to be of prime importance to the University Village families. There was a waiting list for the Play Center despite the fact that the number of living units in the Village had decreased.

Pot Luck Suppers, bridge instructions, and Kiddie Karnivals, were again popular events. During the last year a Welcome Week program for all new residents was held at the Village Union.

The Village Union, as a community center, played an important part in the lives of the residents during the biennium.

**Summer Program**—The summer program followed the pattern of the previous biennium with a variety of events ranging from Whoopee John's Band to outing excursions to the northern part of the State. Square dancing continued as the popular summer event. With the closing of Northrop Auditorium for repairs and alterations the Coffman Union Main Ballroom served as the auditorium for all summer events of 1953.

**Essential Needs**—The first and foremost need is to secure funds for the completion of the much needed new Union on the St. Paul Campus. With the increased enrollment and the development of new college Unions at the surrounding institutions of higher learning it is imperative that this project be completed in order to meet the needs of our students.

With the recent studies of facilities, finances, and programs of these three Unions it will be important to evaluate the changes that have taken place, such as the removal of the post office boxes at Coffman Memorial Union, and to make a long range plan for renovation. Careful consideration must be given also to expansion in order to be prepared for the anticipated increase in enrollment.

The University Outings Center Camp project should be explored to the fullest, especially since the development of the Ski-U-Rovers Outing Program.—GORDON L. STARR, *director*.

## UNIVERSITY HEALTH SERVICE

The health of students in general has been good during the biennium, with no severe epidemics occurring. Certain special problems which had arisen were solved during this period.

In the fall of 1952 the portion of the incidental fee allotted to the Health Service was increased to \$9 per quarter to provide for more hospitalization and for special diagnostic laboratory services without charge to the students. This was necessary because of the increasing costs of hospital care, making it difficult for some students to obtain the care they needed.

The health problems of foreign students have become magnified as the number of foreign students on the campus has increased. Although all such students are supposed to have a medical examination and health clearance before coming to the University, experience has shown that in many instances such examinations are inadequate. One of the major problems of foreign students has been tuberculosis. In our experience, the incidence of tuberculosis in foreign students is ten times that of other students. Great difficulty was encountered in obtaining sanatorium care for such students. Not being citizens, they are ineligible for care in any of the county or state sanatoria, in most instances their funds are extremely limited, and negotiations with their governments to arrange funds for their care have often taken months. In order that provision might be made for the care of foreign students without so much difficulty, in the summer of 1953 the Board of Regents authorized a special health fee of \$8 per quarter for all foreign students who did not have adequate health insurance under some other plan. On the basis of one year's experience, this has seemed a sound and wise provision.

On July 1, 1953, the Health Service was asked to take over the program of radiation hazard control on the campus. This program had been administered previously by an All-University Radiation Control Committee. At the request of this committee the Health Service assumed this responsibility as a part of the over-all environmental health program. An All-University Advisory Committee has been set up to advise the Health Service on this program.

**Health Problems of Veterans**—The health problems of the veterans on campus are little different from those of other students. There continues to be need for assistance to veteran students in establishing eligibility for care at the Veterans Administration. The Health Service has again accepted the responsibility for providing a physician to pass upon the medical feasibility of veterans who are counseled at the Veterans Counseling Service on the campus.

**General Program**—The general program to provide health examinations, medical and hospital care, individual health counseling and instruction, and the supervision of the environmental health of the campus has been continued. An engineer trained in the field of industrial health and radiation control has been added to the staff.

**Health Examinations**—Complete health examinations were given to over 17,000 students during the biennium. The trend of increasing enrollment has increased the number of new students given examinations on admission. During this period there has been a slight decrease in the number of periodic health examinations done.

**Medical Care**—Over 155,000 visits were made to the Health Service dispensary for medical care during this biennial period. This is the highest number ever experienced, both in absolute figures and in proportion to enrollment. In the year 1953-54, 88 per cent of the students enrolled in the University made one or more voluntary visits to the dispensary.

**Hospital Care**—Although there were no epidemics during this period, the number of students hospitalized, as well as the rate per 1,000 students, increased considerably. At the same time, the average length of stay in the hospital was the lowest in the history of the Health Service. The increase in the amount of hospitalization in the absence of any epidemic is undoubtedly the result of the more liberal plan of hospitalization without cost to the student.

**Mental Hygiene**—During the biennium, 870 new patients and 249 former patients have been cared for in the mental hygiene clinic for a total of 1,119. Group psychotherapy, with 30 groups meeting during this two-year period, has been continued. While the majority of students seen in the mental hygiene clinic are referred from physicians in the Health Service, an increasing number seek help voluntarily. Others are referred by the Counseling Bureau, faculty, and others.

**Tuberculosis Control**—The tuberculosis case-finding program, consisting of a tuberculin test and 70-millimeter photofluorographic examination of the chest of each new student and of each student having a periodic health examination, has continued. In addition, all new faculty and non-academic employees who are given a pre-employment examination have this same photofluorographic examination.

During the biennium, over 20,000 photofluorograms were done on students and over 1,500 on staff. During this period, also, routine health examinations revealed 17 cases of active tuberculosis among students, of whom 6 were foreign students, and 2 cases in staff members. There were 167 students and 48 staff members with arrested tuberculosis under observation in the Health Service during the biennium.

**Special Diet Table**—The special diet table, where students with severe dietary problems may eat their meals, has continued to be an extremely important health education project. Many students eating at the diet table would

TABLE I. NUMBER OF COMPLETE MEDICAL EXAMINATIONS GIVEN

Year	Entrance	Periodic	Total
1944-45	5,982	1,730	7,712
1945-46	10,508	2,543	13,051
1946-47	10,419	3,394	13,813
1947-48	6,823	4,259	11,082
1948-49	8,335	3,171	11,506
1949-50	7,721	4,484	12,205
1950-51	7,054	3,570	10,624
1951-52	5,397	4,090	9,487
1952-53	5,831	2,894	8,725
1953-54	6,319	3,095	9,417

TABLE II. VISITS TO THE HEALTH SERVICE (MINNEAPOLIS CAMPUS) FOR MEDICAL ATTENTION

Year	Number of Visits*	Average Number of Visits per Student (Academic Year)
1944-45	39,622	4.51
1945-46	56,864	4.20
1946-47	81,715	3.11
1947-48	76,663	3.03
1948-49	73,523	2.85
1949-50	74,111	3.11
1950-51	68,947	3.31
1951-52	64,587	3.50
1952-53	83,222	5.09
1953-54	72,681	4.40

TABLE III. STUDENT HOSPITAL CARE (MINNEAPOLIS CAMPUS)

Year	Number of Patients	Rate per 1,000 Students (Academic Year)	Number of Hospital Days	Average Stay in Days	Comments
1944-45	1,282	146.0	6,205	4.8	No epidemic
1945-46	1,918	141.8	7,901	4.1	Mild influenza
1946-47	1,502	57.2	6,425	4.3	No epidemic
1947-48	1,470	58.1	6,411	4.4	No epidemic
1948-49	1,428	55.3	5,151	3.6	No epidemic
1949-50	1,355	56.8	5,499	4.1	Mild influenza
1950-51	1,189	64.2	4,364	3.7	No epidemic
1951-52	919	56.0	3,252	3.5	No epidemic
1952-53	1,199	73.3	4,063	3.4	No epidemic
1953-54	1,137	68.8	3,835	3.4	No epidemic

\* These totals do not include visits for physical examinations, dentistry, hospitalization, immunity tests, physiotherapy, laboratory, or x-ray services.

## THE PRESIDENT'S REPORT

TABLE IV. SPECIAL DIET TABLE—KIND AND NUMBER OF CASES

Type of Diet	1952-53		1953-54	
	Number on Diet	Per Cent	Number on Diet	Per Cent
Reduction .....	36	59.0	40	54.8
Diabetic .....	4	6.6	6	8.2
Bland .....	7	11.5	8	11.0
Supernourishing .....	.....	.....	8	11.0
Low-Fat .....	5	8.2	7	9.5
High-Fat .....	5	8.2	.....	.....
Low-Salt .....	2	3.3	2	2.7
Allergy .....	1	1.6	.....	.....
Low Residue .....	1	1.6	1	1.4
Low Purine .....	.....	.....	1	1.4
Total .....	61	100.0	73	100.0

TABLE V. AVERAGE NUMBER OF PATIENTS SERVED DAILY

Quarter	1952-53	1953-54
	Average Number	Average Number
Fall .....	24.9	13.7
Winter .....	27.2	26.0
Spring .....	23.2	24.7

TABLE VI. ST. PAUL CAMPUS HEALTH SERVICE: OUT-PATIENT DEPARTMENT

Year	Medical Attention	Total Immunizations	Total Services Rendered
1944-45 .....	1,556	795	2,351
1945-46 .....	1,164	1,003	2,167
1946-47 .....	3,234	1,541	4,775
1947-48 .....	3,833	1,563	5,396
1948-49 .....	4,259	1,879	6,138
1949-50 .....	4,625	1,865	6,490
1950-51 .....	3,793	1,509	5,302
1951-52 .....	2,675	809	3,484
1952-53 .....	2,660	817	3,477
1953-54 .....	2,503	1,091	3,594

TABLE VII. STUDENT HOSPITAL CARE (ST. PAUL CAMPUS)

Year	Number of Patients	Number of Hospital Days	Average Stay in Days	Comments
1944-45 .....	60	197	3.2	No epidemic
1945-46 .....	137	713	5.2	Mild influenza
1946-47 .....	105	313	3.0	No epidemic
1947-48 .....	103	365	3.5	No epidemic
1948-49 .....	69	227	3.3	No epidemic
1949-50 .....	185	665	3.6	Mild influenza
1950-51 .....	54	174	3.2	No epidemic
1951-52 .....	37	112	3.0	No epidemic
1952-53 .....	98	199	2.0	No epidemic
1953-54 .....	20	61	3.2	No epidemic

be unable to continue their academic work in the University were it not possible for them to obtain special diets. As in the past, the largest percentage of students receiving special diets were the obese. Dietary counseling by a physician and dietitian was given to more than 900 students who needed help but did not need to eat at the special diet table.

**Special Services**—Consultation service in all of the medical specialties continues to be available to students in the Health Service. The consultation services most in demand are in the field of dermatology, ophthalmology, otolaryngology, and neurology.

**St. Paul Campus**—Tables VI and VII present the out-patient and hospital services on the St. Paul Campus. While the number of students receiving medical attention in the out-patient department has continued to remain at a relatively low level during the past two or three years, the number of students hospitalized in the St. Paul Campus Health Service in 1953-54 was the lowest in the history of the Health Service.

**Faculty Examinations**—During the biennium 360 medical examinations were given to new members of the academic staff and to those promoted to positions implying tenure.

**Civil Service Examinations**—Medical examinations were given to 1,624 individuals applying for positions on the regular payroll of the Civil Service staff. This is 112 more than were done in the last biennium. Twenty-one individuals were found to have physical disabilities which prevented employment for the type of work for which they were applying.

**Environmental Health**—The program of annual inspection of student housing has continued. The continued cooperation of the householders has resulted in much progress and improvement of housing facilities for students. Consultation service has continued to be given to fraternities and sororities and to other student organizations planning to build or remodel houses.

Supervision of all food services operated by the University, as well as food services operated by fraternities, sororities, student cooperatives, and religious foundations, has continued. The examination and supervision of all food handlers working in University-owned or supervised food services is an important part of the food service program.

The supervision of the five University swimming pools, including the collection of samples of water from each of the pools weekly, checks on chlorination and on conditions of operation and maintenance, continues under the supervision of the public health engineer of the Health Service. As in all other aspects of the environmental health program, excellent cooperation has been given by the Physical Plant Department, University Services, and directors of the food services.

The responsibility for the administration of the radiation control program which was given the Health Service July 1, 1953, has added an additional load to the environmental health program. An additional public health engineer, with special training in the field of industrial health as well as radiation control, was added to the staff to take the major responsibility for this program. The increasing use of radioactive materials in various departments about the campus has made the need for supervision of personnel working with radioactive substances increasingly urgent. Additional technical personnel have been added to the staff to meet these needs.

**Research**—The follow-up research studies on former students of medicine and nursing in relation to tuberculin tests and x-rays is all but completed. The first report on the follow-up of medical students is ready for publication.—RUTH E. BOYNTON, M.D., *director*.

#### UNIVERSITY OF MINNESOTA PRESS

The biennium brought to the Press a major change through the retirement, on June 30, 1953, of Mrs. Margaret S. Harding, the director. Mrs. Harding had guided the Press from its beginnings in 1927 as a one-woman operation conducted from an extra desk in the office of the Graduate School to its

mature status as a professional publishing unit employing a staff of twenty and ranking by common consent among the outstanding university presses in the United States.

In recognition of Mrs. Harding's signal achievement, the university sponsored a conference and dinner in her honor on May 11, 1953. The conference, designed to acquaint faculty members and graduate students with some of the policies and problems of scholarly publishing, brought to the campus Victor Reynolds, director of the Cornell University Press and president of the Association of American University Presses; Thomas J. Wilson, director of the Harvard University Press; Chester Kerr, secretary of the Yale University Press; Hiram Haydn, editor of the *American Scholar*; and Charles E. Odegaard, dean of the Liberal Arts College of the University of Michigan. The speaker at the dinner was Morris L. Ernst, militant champion of the freedom to speak, to write, and to read.

Helen Clapesattle, a member of the Press editorial staff since 1937 and its head since 1942, was appointed to succeed Mrs. Harding as director. At the same time the first step was taken toward academic status for the professional staff of the Press by making Miss Clapesattle a member of the faculty with the rank of associate professor.

After a temporary slackening attendant upon the change of administration, the Press's production of books accelerated rapidly and by the end of the biennium was approaching an all-time high—owing in part to increased subsidy funds provided by the University and in part to heroic efforts, well beyond the call of duty, by members of the staff. Sales were moving upward again, and the increased inventory and accelerated production schedule promised a continuation of this trend. Plans had been put into operation for stepping up the use of advertising and publicity in the promotion of Press books and for acquiring more active agency representation in the handling of subsidiary rights.

Aware that merely to maintain the present level and scope of Press activities would be to lose our relative standing among university presses, since others are advancing, the staff is giving a good deal of thought to alternative directions for future development, seeking to determine by what policies and programs the Press can best continue to serve the University, the world community of scholars, and the people of Minnesota and the nation. In attempting this long-range planning the Press is handicapped by its urgent need for more space to house both personnel and books and by its lack of a stable financial basis for its operations, but we are confident that satisfactory solutions will be found for both these problems.

Following is the list of Press publications for the biennium. We believe they are distributed in reasonable proportion among the three established categories of Press publishing: works by scholars for scholars, works reporting and interpreting scholarship to the general public, and works describing and interpreting Minnesota and the Upper Midwest for their own people and for the nation at large.

Not listed are many items the Press staff edited and designed for other units of the university: programs, invitations, letterheads, bookplates, and brochures such as the description of the Ames Library of South Asia and the prospectus for the Cedar Creek Forest area.

*Intergovernmental Relations in Social Welfare.* Ruth Raup. (Intergovernmental Relations Series No. 5.) Published: August 8, 1952. Price: \$3.00. x plus 234 pp. Paper. 8½ x 11. Edition: 500.

*Intergovernmental Relations in Employment Security.* Francis E. Rourke. (Intergovernmental Relations Series No. 6.) Published: August 8, 1952. Price: \$2.50. vii plus 133 pp. Paper. 8½ x 11. Edition: 500.

*Flour for Man's Bread: A History of Milling.* John Storck and Walter Dorwin Teague. Published: August 19, 1952. Price: \$7.50. xiv plus 382 pp. 150 plates. Cloth. 7 x 10. Edition: 5,000.

*Behavior Difficulties of Children as Perceived and Judged by Parents, Teachers, and Children Themselves.* William Griffiths. (Child Welfare Monograph No. 25.) Published: August 19, 1952. Price: \$3.00. xii plus 116 pp. 16 illustrations. Cloth. 6 x 9. Edition: 1,500.

*Rheumatic Fever: A Symposium.* Lewis Thomas, M.D., editor. Published: September 3, 1952. Price: \$10.00. 349 pp. 57 illustrations. Cloth. 6 x 9. Edition: 2,000.

*Samuel Johnson's Literary Criticism.* Jean H. Hagstrum. Published: October 20, 1952. Price: \$3.50. xii plus 212 pp. Cloth. 5½ x 8½. Edition: 3,000.

*Searching for Your Ancestors.* Gilbert H. Doane. (2nd printing of reissue.) Issued: October 31, 1952. Price: \$3.50. 176 pp. 4 charts. Cloth. 5½ x 8½. Edition: 2,000.

*Music and Maestros: The Story of the Minneapolis Symphony Orchestra.* John K. Sherman. Published: November 3, 1952. Price: \$3.75. xiv plus 357 pp. 76 illustrations. Cloth. 5½ x 8½. Edition: 3,000.

*Free India in Asia.* Werner Levi. Published: November 21, 1952. Price: \$2.75. viii plus 164 pp. Map frontispiece. Cloth. 5½ x 8½. Edition: 2,000. (2nd printing.) Issued: June 9, 1954. Edition: 1,000.

*Improve Your Reading.* Frances Oralind Triggs. (9th printing.) Issued: November 21, 1952. Price: \$1.50. 127 pp. Paper. 6 x 9½. Edition: 5,000.

*The Soybean Industry: With Special Reference to the Competitive Position of the Minnesota Producer and Processor.* Ray A. Goldberg. Published: November 28, 1952. Price: \$5.00. xv plus 186 pp. 42 figures, 73 tables. Cloth. 6 x 9. Edition: 1,000.

*Student Deferment in Selective Service: A Vital Factor in National Security.* M. H. Trytten. Published: December 1, 1952. Price: \$3.00. viii plus 140 pp. 13 figures. Cloth. 5½ x 8½. Edition: 2,000. (Special edition for Engineering Manpower Commission of Engineers Joint Council.) Issued: May 27, 1953. Edition: 5,015.

*Wholesaling in the Twin Cities.* Edwin H. Lewis. (University of Minnesota Studies in Economics and Business No. 15.) Published: December 15, 1952. Price: \$1.50. viii plus 48 pp. 7 figures. Paper. 6 x 9. Edition: 1,500.

*Child Care and Training.* Marion L. Faegre and John E. Anderson. (7th edition revised, 3rd printing.) Issued: January 2, 1953. Price: Trade, \$3.25; text, \$2.50. vi plus 310 pp. 23 illustrations. Cloth. 5½ x 7¾. Edition: 5,000.

*William Cowper, A Critical Life.* Maurice J. Quinlan. Published: January 23, 1953. Price: \$4.50. xiv plus 251 pp. 3 halftones. Cloth. 5½ x 8½. Edition: 3,000.

*Minnesota's Interstate Trade.* Edwin H. Lewis. (University of Minnesota Studies in Economics and Business No. 16.) Published: March 23, 1953. Price: \$1.50. xiv plus 48 pp. 2 zincs. Paper. 6 x 9. Edition: 1,500.

*A Social Program for Older People.* Jerome Kaplan. Published: April 10, 1953. Price: \$3.00. xvi plus 158 pp. 6 zincs. Cloth. 5½ x 8½. Edition: 2,000. (2nd printing.) Issued: January 14, 1954. Edition: 2,000.

*Physiological Foundations of Neurology and Psychiatry.* Ernst Gellhorn, M.D. Published: April 17, 1953. Price: \$8.50. xiii plus 556 pp. 105 zincs, 2 halftones. Cloth. 6 x 9. Edition: 2,500.

*Answerable Style: Essays on Paradise Lost.* Arnold Stein. Published: May 25, 1953. Price: \$3.50. xi plus 166 pp. Cloth. 5½ x 8½. Edition: 2,000.

*Backgrounds of English Literature, 1700-1760.* Cecil A. Moore. Published: June 9, 1953. Price: \$4.50. xii plus 254 pp. Cloth. 5½ x 8½. Edition: 1,000.

*Analyzing and Predicting Juvenile Delinquency with the MMPI.* Starke R. Hathaway and Elio D. Monachesi, editors. Published: July 15, 1953. Price: \$3.50. viii plus 153 pp. 2 zincs. Cloth. 6 x 9. Edition: 2,000.

*Savings in the Modern Economy: A Symposium.* Walter W. Heller, Francis M. Boddy, and Carl L. Nelson, editors. Published: September 2, 1953. Price: \$5.00. xix plus 370 pp. Cloth. 6 x 9. Edition: 3,000.

*Weekly Newspaper Make-up and Typography.* Thomas F. Barnhart. (2nd printing.) Issued: October 1, 1953. Price: \$5.00. ix plus 267 pp. 96 illustrations. Cloth. 6 x 9. Edition: 1,000.

*The Makah Indians.* Elizabeth Colson. Published: October 15, 1953. (Joint publication with the University of Manchester.) Price: \$4.75. xvi plus 308 pp. 6 zincs. Cloth. 5½ x 8½. Edition: 1,000.

*Roles and Relationships in Counseling.* Ralph F. Berdie, editor. (Minnesota Studies in Student Personnel Work No. 3.) Published: October 15, 1953. Price: \$1.25. vi plus 38 pp. Paper. 6 x 9. Edition: 1,000.

*The Mammals of Minnesota.* Harvey L. Gunderson and James R. Beer. Published: October 15, 1953. Price: Cloth, trade, \$3.50; Paper, text, \$2.00. xii plus 190 pp. 79 zincs, 31 halftones. Cloth and paper. 6 x 9. Edition: 2,000 cloth, 3,000 paper.

*A Short History of Parliament, 1295-1642.* Faith Thompson. Published: November 4, 1953. Price: \$4.50. x plus 280 pp. 5 halftones. Cloth. 6 x 9. Edition: 2,000.

*Modern China's Foreign Policy.* Werner Levi. Published: November 20, 1953. Price: \$5.50. 399 pp. 1 map. Cloth. 6 x 9. Edition: 3,000.

*Student Counseling in Japan: A Two-Nation Project in Higher Education.* Wesley P. Lloyd. (A volume in the Minnesota Library on Student Personnel Work.) Published: December 29, 1953. Price: \$4.00. xiv plus 204 pp. 9 halftones. Edition: 2,000.

*Revised Minnesota Occupational Rating Scales.* Donald G. Paterson, C. d'A. Gerken, and Milton E. Hahn. (Minnesota Studies in Student Personnel Work No. 2.) Published: December 29, 1953. Price: \$2.00. x plus 85 pp. Paper. 6 x 9. Edition: 2,000.

*Scales for Appraising High School Homemaking Programs.* Clara Brown Army and Sara Blackwell. Published: December 29, 1953. Price: specimen set, \$.75. 2 tests of 4 pp. each; manual, 8 pp. Paper. 8½ x 11. Edition: 3,000.

*Fundamentals of World Organization.* Werner Levi. (3rd printing.) Issued: January 11, 1954. Price: \$3.00. ix plus 233 pp. Cloth. 5½ x 8½. Edition: 2,000.

*Highlights in the History of the American Press: A Book of Readings.* Edwin H. Ford and Edwin Emery, editors. Published: January 18, 1954. Price: Trade, \$6.50; text, \$5.00. xii plus 398 pp. Cloth. 6 x 9. Edition: 2,000.

*The Tangled Fire of William Faulkner.* William Van O'Connor. Published: February 1, 1954. Price: Trade, \$4.00; text, \$3.00. xvi plus 182 pp. Cloth. 5½ x 8½. Edition: 4,000.

*Epicturus and His Philosophy.* Norman W. DeWitt. Published: February 15, 1954. Price: \$6.00. viii plus 388 pp. Cloth. 6 x 9. Edition: 2,000.

*Theory and Method in the Social Sciences.* Arnold M. Rose. Published: March 16, 1954. Price: \$5.00. xii plus 351 pp. Cloth. 6 x 9. Edition: 3,000.

*The Sociology of Work.* Theodore Caplow. Published: April 9, 1954. Price: \$5.00. x plus 330 pp. Cloth. 6 x 9. Edition: 3,000.

*After High School—What?* Ralph F. Berdie. (A volume in the Minnesota Library on Student Personnel Work.) Published: April 12, 1954. Price: \$4.25. xii plus 240 pp. 2 zincs. Cloth. 6 x 9. Edition: 3,000.

*The Braggart in Renaissance Comedy: A Study in Comparative Drama from Aristophanes to Shakespeare.* Daniel C. Boughner. Published: April 16, 1954. Price: \$5.00. x plus 328 pp. Cloth. 5½ x 8½. Edition: 1,500.

*Aliferis Music Achievement Test. College Entrance Level.* James Aliferis. Published: April 26, 1954. Price: specimen set, \$3.75. Manual, 28 pp., text, 8 pp., template. Paper. 8½ x 11. Edition: 6,000 tests, 600 manuals, 700 templates.

*Early Candlelight.* Maud Hart Lovelace. (2nd printing of reissue.) Issued: May 25, 1954. Price: \$3.00. 322 pp. 5½ x 7½. Edition: 3,000.

*Method and Perspective in Anthropology: Papers in Honor of Wilson D. Wallis.* Robert F. Spencer, editor. Published: May 28, 1954. Price: \$4.50. xii plus 323 pp. frontispiece. Cloth. 5½ x 8½. Edition: 2,000.

*Minnesota's Rocks and Waters: A Geological Story.* George M. Schwartz and George A. Thiel. (Geological Bulletin No. 37.) Published: June 3, 1954. Price: Trade, \$4.00; text, \$3.00. xviii plus 366 pp. 160 illustrations. Cloth. 6 x 9. Edition: 7,500.

*Auditing Your Manpower Management.* Dale Yoder, Herbert G. Heneman, Jr., and Harland Fox. (Industrial Relations Center Bulletin No. 13.) Published: June 7, 1954. Price: \$1.00. 37 pp. Paper. 6 x 9. Edition: 6,500.

*A University Looks at Its Program: The Report of the University of Minnesota Bureau of Institutional Research, 1942-1952.* Ruth E. Eckert and Robert J. Keller, editors. (A volume in the Minnesota Studies in Higher Education.) Published: June 14, 1954. Price: \$4.00. xii plus 223 pp. 2 zincs. Cloth. 6 x 9. Edition: 1,000.

*Selection and Counseling of Students in Engineering.* Wilbur L. Layton, editor. (Minnesota Studies in Student Personnel Work No. 4.) Published: June 18, 1954. Price: \$1.75. vi plus 89 pp. 2 zincs. Paper. 6 x 9. Edition: 1,000.

*Philosophical Studies.* Volume III, Nos. 5, 6; Volume IV, Nos. 1, 2, 3, 4, 5, 6; Volume V, Nos. 1, 2, 3, and 4. Average edition: 750.

#### TESTS REPRINTED

*Minnesota Speed of Reading Test for College Students, Form A.* Alvin C. Eurich. 25,200 copies. October 29, 1952.

*Social Participation Scale.* F. Stuart Chapin. (Revised edition.) 3,000 copies. November 4, 1952.

*Social Status Scale.* F. Stuart Chapin. (Revised edition.) 3,000 copies. November 4, 1952.

*Minnesota Check List for Food Preparation and Serving.* Clara M. Brown. (Revised edition, 1951.) 5,000 copies. March 18, 1953.

*Rating Scale for Personal Qualities and Abilities.* Clara M. Brown. (4th revised edition, 1938.) 10,000 copies. October 27, 1953.

*Minnesota Home Status Index: A Scale for Measuring Urban Home Environment.* Alice M. Leahy. 5,000 copies. November 3, 1953.

#### ITEMS PRODUCED FOR DISTRIBUTION BY OTHER DEPARTMENTS OF THE UNIVERSITY

*Red Wing—Five Years Later.* Roland S. Vaile. (The Community Basis for Postwar Planning No. 12.) Issued: July 21, 1952. (Distributed by the Graduate School.) iv plus 27 pp. Paper. 6 x 9. Edition: 2,000.

*Friends of the University Library. An Occasional Bulletin, Vol. 1, No. 6.* Issued: December 24, 1952. (Distributed by the University Library.) 4 pp. Paper. 9 x 12. Edition: 800.

*The University of Minnesota Library and the Ames Library of South Asia.* Issued: February 18, 1953. (Distributed by the University Library.) 16 pp. Paper. 5 x 8. Edition: 2,000.

*The Garrison State: Its Human Problems.* Issued: March 10, 1953. (Distributed by the Social Science Research Center.) vi plus 64 pp. Paper. 6 x 9. Edition: 2,052.

*Social Science Research: Its Expanding Horizons.* F. Stuart Chapin. Issued: June 9, 1953. (Distributed by the Social Science Research Center.) vi plus 20 pp. Paper. 6 x 9. Edition: 2,500.

*Annual Report of the Hormel Institute, 1951-52.* Issued: July 3, 1953. (Distributed by the Hormel Institute.) 85 pp. Paper. 6 x 9. Edition: 1,250.

*Report of Progress, 1951-1953: Counseling in Human Genetics, Part III.* (The Dight Institute of the University of Minnesota, Bulletin No. 8.) Issued: January 6, 1954. (Distributed by the Dight Institute.) 19 pp. Paper. 6 x 9. Edition: 2,000.

*Annual Report of the Hormel Institute, 1952-53.* Issued: April 14, 1954. (Distributed by the Hormel Institute.) 87 pp. Paper. 6 x 9. Edition: 1,250.

*Builders of the University of Minnesota Library School.* D. K. Berninghausen. Issued: May 12, 1954. (Distributed by the Library School.) 8 pp. Paper. 5½ x 8½. Edition: 2,500.

—HELEN CLAPESATTLE, *director.*

## MINNESOTA MUSEUM OF NATURAL HISTORY

**Exhibits**—Work is now under way on the last major habitat exhibit for which space is provided in the present building. This will depict spring wild-life in the spruce-balsam forests in Northern Minnesota. Three intermediate-sized (7') exhibits have been completed: the otter group, the ring-necked pheasant, and the loon. Three smaller exhibits of the pocket gopher, gray squirrel, and red-bellied woodpecker were opened. An automatic 2" x 2" slide projector with cabinet is now available for operation by Museum visitors. This makes our 2" x 2" slide library more active in serving the public. Two new cases housing 10 4' x 6' exhibit panels have been installed on the mezzanine floor to house temporary exhibits. These were initiated with an exhibit of arctic photographs by Harvey L. Gunderson. Two other exhibits, one of paintings by Francis L. Jaques and one of representative American wildlife painters, were shown. Twenty-eight additional panels of temporary displays have occupied these cases and those in the lobby alcove during the biennium.

**Attendance**—This report does not include the thousands of persons attending non-Museum meetings, but only those attending Museum-sponsored meetings in the auditoriums and those visiting the Museum exhibition corridors. The total attendance for the year 1952-1953 was 53,138; for 1953-1954, 54,196; a biennial total of 107,334. During 1952-1953, 200 groups totalling 7,893 persons, were conducted on Museum tours; during 1953-1954, 213 such groups totaled 7,724—a biennial total of 413 tours, totalling 15,617 persons.

**Lectures**—The Museum's free public lecture series given on Sunday afternoons had 15,379 in attendance in 1952-1953 and 18,442 in 1953-1954—a biennial total of 33,821 or an average of 769 per lecture for the 44 programs. Since the auditorium seats only 470, considerable difficulty as well as patron dissatisfaction was encountered because of overcrowding. Many programs were repeated and several third showings were necessitated. In addition to this series, staff members gave 154 lectures outside the Museum with attendance of 28,671 during 1952-1953 and 154 lectures with attendance of 23,906 during 1953-1954—a biennial total of 308 lectures attended by 52,577 persons. This includes the director's two series of lectures given in eastern U.S. and Canada under the sponsorship of the National Audubon Society. Twenty-two lectures were given in 1952-1953 attended by 15,525 persons, and 22 lectures in 1953-1954 attended by 7,500. Staff members have made 6 radio and television appearances on local stations.

**Field Studies**—A major field project during the biennium was the University of Minnesota-Wilkie Back River Expedition carried out from June 14 to August 13, 1953. This was largely geological and biological exploration in one of the least known areas on the North American mainland, eastern Keewatin of the Canadian Northwest Territories. The Museum was aided materially in this work by gifts from the Wilkie Foundation. Further assistance was secured from the U.S. Army Quartermaster Corps, U.S. Fish and Wildlife Service, Wildlife Management Institute, and the Geological Society of America. The members of the Museum staff, Harvey L. Gunderson, mammalogist and photographer; John Jarosz, preparator; and Walter J. Breckenridge, ornithologist, photographer, and expedition leader participated. In addition, Richard S. Taylor, University instructor in geology, carried on geological work; Robert J. and James W. Wilkie did photography, sound recording, and entomological collecting; while Dr. Lawrence Larson, College of Medical Sciences, was the expedition physician. A large part of the expedition's material was lost in a plane crash 300 miles north of Churchill on the return trip. Materials returned include 60 birds, 35 mammals, 39 fishes, 289 plant collec-

tions, 4,000' of 16mm. motion pictures, and 700 still photos, in addition to soil and rock samples. These are being deposited in the collections of the Museum and other appropriate University departments. Scientific reports for publication are nearly completed.

Dwain W. Warner left the University on a year's sabbatical leave in September 1953. His field project is the study of the influence of isolation by river valleys on the distribution and subsequent speciation in the Mexican singing quail, a bird of high mountain habitats. Professor Warner is still absent on this project and only sketchy reports of his progress have been received.

Four additional field trips were made into western and northern Minnesota for collecting specimens and motion pictures of mammals and birds and materials for habitat exhibits. These trips and local collecting added 159 birds, 93 mammals, 160 skeletons, and 900 feet of motion pictures to the Museum collections.

**Photography**—Museum personnel completed in cooperation with Audio-Visual Education Service a 600' 16 mm. color sound reel of motion pictures entitled *Marsh Waters—Wealth or Waste*. This pointed out various values of marshes to be considered before drainage is undertaken. Fourteen copies of this film have been sold to conservation education groups. Two thousand of the 4,000 feet of 16 mm. color film secured on the University Arctic Expedition have been edited and are being used in lectures reporting on the trip. Five hundred seventy-two kodachrome transparencies and 180 black-and-white photographs also were secured in the Arctic.

**Cooperation**—Loans of portable display cases to schools, state parks, scout camps, and exhibitions totaled 2,585. Each case loaned was on display from a few days to 3 months. Thirteen specimens of birds and 139 mammals were loaned to other institutions for scientific study. Donald K. Lewis, the Museum's audio-visual adviser, was again loaned to the Minnesota Division of State Parks for the summers of 1953 and 1954. Some assistance was enlisted from the Duluth Branch, Mankato High School, and St. Mary's College, during 1953 when Museum staff members were in the Arctic. Use was made of arctic photographs by *Life Magazine* as source material for its June 7, 1954, issue featuring "Icebound Barrens of the Arctic Tundra." Copies of all scientific reports resulting from the Arctic Expedition are being sent to the U.S. Army and certain ones are sent to several other governmental agencies in both the United States and Canada.

**Gifts**—Robert J. and James W. Wilkie of the Wilkie Foundation provided the initial donation of funds and loan of equipment that made possible the University of Minnesota-Wilkie Back River Arctic Expedition. Special tents, camp supplies, boat, photographic equipment, transportation, and services were made available to the Museum at a cost of approximately \$10,000. Expenses incurred on the trip have been guaranteed up to \$5,000, but since all expedition costs have not yet been paid, the exact total of the gift to the University cannot be stated at this time.

Mrs. Jacob G. Cohen and her daughters, Mrs. Ruth Cohen Levy and Barbara Cohen, gave \$1,700 for Museum exhibits in honor of their son and brother, David Cohen, who was killed in Korea. A \$600 gift by Mr. and Mrs. Malvin Herz, also in honor of David Cohen, nephew of Mr. and Mrs. Herz, was used to purchase an automatic slide projector.

Regent James F. Bell has continued his gift of \$75.00 per month for incidental Museum expenses which during the biennium amounted to \$1,800. Gifts of specimens for the Museum's collections totaled 99 mammals, 128 birds, 50 skeletons, 4,500 photographs, 27 sets of birds' eggs, 4 bird nests, and 3 books.

**Staff**—During the absence of Dwain W. Warner, curator of ornithology, on sabbatical leave in Mexico, his duties have been assumed by Byron Harrell.

**Publications**—A major Museum publication appearing during the biennium was *The Mammals of Minnesota* by Harvey L. Gunderson of the Museum staff and James R. Beer of the Department of Entomology and Economic Zoology. Twenty-six articles by Museum staff members have appeared in various journals and bulletins.

**Future**—Since the Museum is a state-supported institution, it should develop along lines wherein it will contribute primarily to the people of the state and should not function merely as a local Twin Cities museum. Plans contemplate its development into a well-balanced scientific institution contributing in three distinct fields: student instruction, research, and public education.

The Museum's part in student instruction will be (1) through departmental curators spending half time in teaching in their respective departments, thus making the best possible use of the Museum's materials and facilities with which the curators will be thoroughly familiar; (2) through this same organization Museum exhibits can best be coordinated with University students' needs; and (3) through expanded programs and improved techniques in conducting Museum field trips our aid to secondary school students will be extended.

Research will benefit by (1) the split appointment of curators in that it will bring the research facilities of the Museum and its collections to bear on problems of direct concern to the leaders in the fields of natural history education; (2) physically separating the research and the teaching functions of such scientists; (3) large research collections eventually being administered by the Museum, so that teaching departments will be relieved of the responsibility of administering large collections; and (4) large research collections being assured of adequate continuing care under Museum administration.

Popular education, of both children and adults, will continue and enlarge through (1) additional Museum exhibits, (2) production of motion pictures, (3) state parks cooperative program, (4) public lecture series, and (5) publications. In all these popular education efforts the authoritative nature of the materials presented will benefit by the close connection with research and student training maintained through the Museum's developing program.

It is suggested that the Cedar Creek Forest be administered as a department of the Museum with a policy-making committee advising, following precedents at the Universities of Michigan and California. This outdoor laboratory cuts across many departmental lines, but its possibilities lie almost entirely within the natural history fields.

It is further suggested that an enlarged publication fund be made available to the Museum to expand facilities for and concentrate the supervision of publications in the natural sciences.

It is hoped that the cooperative program with the Minnesota Division of State Parks can be so expanded as to place supervision of a staff of state park naturalists in the Museum, as has been suggested by U. W. Hella, director, Division of State Parks.—WALTER J. BRECKENRIDGE, *director*.

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS

**General History**—The Reserve Officers' Training Corps program at the University of Minnesota is authorized by the National Defense Act of 1916 which provides for the establishment and maintenance of military training in civilian colleges and universities; this training leads to a commission in the Army Reserve for qualified graduates. The Army ROTC was established at the University of Minnesota in 1919 and has been continuous to date with the exception of the war years of 1944-45 when it was replaced by the Army Specialized Training Program.

**General Comments**—The conflict which started in Korea in June 1950 ended during this period and was replaced by an armed truce. The Universal Military Training and Service Act continued to be an important factor insofar as influencing the enrollment is concerned. However, there were other factors involved, such as the increasing cooperation and assistance given by faculty advisers and student counselors and the orientation tours which new students were given as an introduction to campus activities in general and educational programs in particular.

A significant change which occurred during this period was the termination of ROTC courses in the Medical and Dental branches. This was a country-wide change which came about as a result of medical doctors and dentists going into the armed services through other programs.

The 1954 senior class was unusually large, totaling 315. Its size was due to the fact that its members entered immediately following the Korean outbreak in June 1950. No doubt their entrance was stimulated by the combination of this activity being highlighted in the news and the added motivation of the Selective Service program. There was a noticeable enrollment decrease in the fall of 1953 which is likely to continue in the fall of 1954. The apparent reason is the end of the active war in Korea and the somewhat lesser demands made of Selective Service, both of which appear to have contributed to a somewhat lesser interest in the ROTC program in general.

Probably the most significant development that occurred during this period was the decision to change to the General Military Science curriculum. This program could be defined as a well-planned, practical program which has been worked out by a combination of civilian and military educators and which is designed to make officers first and specialists second. The adoption of the new program did provide that the specialized program would be continued for those students who are already in the advanced course and who had already been committed in the direction of a particular branch. The specific branch program will be continued, therefore, for the seniors during the academic year 1954-55 but all other students begin the new General Military Science program effective with the start of the academic year in 1954. The main effect of the change will be that the military instruction in the Army program will henceforth be conducted along broad, general lines rather than on specialized subjects as it has been in the past.

**Enrollment**—Table I gives the ROTC enrollment for the biennium. The tabulation includes all branches of the Army ROTC which were still in effect at the end of the academic year 1953-54.

TABLE I. ROTC STRENGTH AT THE END OF EACH SCHOOL YEAR

End of School Year	Basic Course		Advanced Course		Total
	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	
1952-53	417	312	380	106	1,215
1953-54	165	223	185	315	888

**Curriculum**—The new General Military Science Curriculum was adopted in the Army ROTC effective with the start of the academic year 1954-55. At that time Army ROTC students begin the new program (without branch designation). Under the new program all students take the same course of instruction depending, of course, on their academic year. The first graduation in the General Military Science program will occur in June 1956 and these graduates will be subject to assignment in any arm or service of the Army depending to a certain extent upon their choice and to a greater extent upon the nature of the course they pursued in college. However, the overriding factor will of necessity be the world situation and the demands of the active Army at the time of graduation.

**Faculty**—Table II provides data concerning members of the department who served during the biennium.

**ROTC Graduation**—Sixty students were commissioned in the U.S. Army Reserve in June 1953 and 238 in June 1954.

Those students who attain high ratings in both their academic and military subjects and who are considered outstanding in other respects are designated as Distinguished Military Students at the end of their third year in ROTC. In the event that these students maintain the same high standards during their senior year they are graduated as Distinguished Military Graduates and as such become eligible for appointment in the Regular Army. In 1953 there were 18 such students and in 1954 there were 31.

**Special Activities**—The regular honorary military organizations such as the Pershing Rifles and the Scabbard and Blade continued to be active during this period.

TABLE II. MEMBERS OF THE DEPARTMENT OF MILITARY SCIENCE AND TACTICS

Name	Grade	Branch	Reported	Departed
Ashton H. Pully	Lt. Col.	Arty	Aug. 26, 1949	Aug. 18, 1953
August R. Wood	Lt. Col.	Ord	Sept. 10, 1949	Aug. 14, 1953
Michael F. Aliotta	Major	CE	Sept. 19, 1949	Aug. 28, 1952
Clifford H. Tornstrom	Lt. Col.	DC	July 1, 1950	July 22, 1952
Thomas A. Sullivan	Major	QMC	July 6, 1950	July 6, 1953
David J. Cockrill	Capt.	Inf	Sept. 28, 1950	Feb. 24, 1953
Robert E. Lee	Capt.	Arty	Sept. 28, 1950	May 25, 1953
William C. Luehrs	Major	MSC	May 15, 1951	Aug. 2, 1954
William F. Sheeley	Lt. Col.	MC-USAF	July 2, 1951	July 12, 1953
William O. Barton	Capt.	TC	July 25, 1951	Aug. 5, 1954
Gerald V. Olson	Capt.	Arty	Aug. 1, 1951	Nov. 26, 1952
Carl V. Nebel	Capt.	Arty	Sept. 6, 1951	Nov. 21, 1952
George L. Freeman	Capt.	QMC	Sept. 17, 1951	June 19, 1954
James E. Warburton, Jr.	Capt.	Sig C	Feb. 15, 1952	Oct. 15, 1953
Robert T. Connor	Colonel	Arty	June 2, 1952	
John H. McNutt	Major	DC-USAF	June 2, 1952	Aug. 5, 1953
Jerome K. Hostetler	Lt. Col.	TC	July 2, 1952	
Thomas D. Williams	CWO	USA	July 21, 1952	
Harry J. Bryson	Capt.	CE	July 24, 1952	
Edward W. Smith, Jr.	Major	CE	Aug. 1, 1952	
John G. Gaddie	Capt.	Ord	Aug. 3, 1952	Sept. 23, 1954
John C. Burckart	Capt.	Arty	Nov. 2, 1952	Dec. 22, 1953
Bernard P. Leahy	Major	QMC	June 8, 1953	
Hubert J. Jensen	Capt.	QMC	Aug. 3, 1953	
Clarence W. Goldey	Capt.	Sig C	Sept. 14, 1953	
Paul R. Flanagan	Major	Arty	Sept. 18, 1953	
Francis L. Franklin	Capt.	TC	March 7, 1954	
David P. Parsons	Capt.	Ord	May 17, 1954	
Jack W. McNamara	Capt.	MSC	May 25, 1954	
Myles H. Mierswa	1st Lt.	Arty	Sept. 7, 1954	

The national professional quartermaster fraternity (Phi Chi Eta), which was organized and activated in January 1951 and in which any quartermaster student in the ROTC was eligible for membership, became inactive in June 1954 due to the fact that the quartermaster program was being phased-out.

The Army ROTC was again a contributing factor to the success of the Red Cross Blood Drives conducted in the Armory in 1952-53 and 1953-54.

As has been the custom in past years, selected students from the ROTC continue to function as color guards and ushers at such University functions as convocations, commencement exercises, football games, etc.

**Ratings**—As a result of the annual inspection conducted by representatives of Headquarters Fifth Army, the ROTC at this institution received ratings of "satisfactory" in the years 1953 and 1954. Mention should be made of the fact that these ratings are either "satisfactory" or "unsatisfactory" and the degree to which a unit is considered satisfactory is not mentioned in the official report. On each occasion the lack of adequate facilities was noted by inspecting officers as the only deficiency.

**Recommendations**—The deficiency which has been listed in the past involving lack of space no longer assumed the same significance. While no more space has been made available to the Army ROTC program, it is recognized that the enrollment was reduced almost 50 per cent since the last report and this fact alone alleviated the space requirement considerably. Consider further that the change in the program to General Military Science will eliminate several of the heavier items such as a 105 mm. gun, a quadruple mount machine gun, and some extremely bulky and heavy radio equipment. When this change has been effected it is felt that the available facilities will be entirely adequate and the deficiency will no longer exist.—ROBERT T. CONNOR, Colonel, Artillery, P.M.S.&T.

#### DEPARTMENT OF NAVAL SCIENCE

During the biennium, the Naval ROTC continued its primary mission of providing, by a permanent system of training and instruction in essential naval subjects, a source from which qualified officers may be obtained for the Navy, the Marine Corps, the Naval Reserve, and the Marine Corps Reserve.

## THE PRESIDENT'S REPORT

This biennium observed a decrease in the number of students who volunteered and were selected for the "Contract" program. In the fall of 1952, the University of Minnesota enrolled 82 new contract students which represented 100 per cent of the quota assigned by the Navy Department; however, over 30 were disenrolled within one year. The majority of these students were disenrolled at their own request with the remainder being disenrolled by reason of physical disqualification, academic failure, or personal hardship. In the fall of 1953, 33 new contract students were enrolled, representing approximately 50 per cent of the quota assigned by the Navy Department. It is felt that the decrease in interest in the Naval ROTC Contract Program was the result of the cessation of hostilities in Korea and the subsequent easement of international tension.

During the biennium, NROTC graduates of the University of Minnesota were commissioned as follows:

Ensign, Line, U. S. Navy .....	37
Ensign, Line, U. S. Naval Reserve .....	17
Ensign, Supply Corps, U. S. Navy .....	19
Ensign, Supply Corps, U. S. Naval Reserve .....	11
Second Lieutenant, U. S. Marine Corps .....	6
Second Lieutenant, U. S. Marine Corps Reserve .....	4
Total .....	94

—DOYLE M. COFFEE, *Captain, U. S. Navy, P.N.S.*

## DEPARTMENT OF AIR SCIENCE

**General**—The Air Force ROTC program has declined in total enrollment since the last biennial report as indicated in the following table:

TABLE I. AIR FORCE ROTC STRENGTH AT END OF EACH SCHOOL YEAR

School Year	Basic Course		Advanced Course		Total
	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	
1952-53 .....	252	394	205	55	906
1953-54 .....	191	255	113	209	768

There was a decided drop in enrollment following the cessation of hostilities in Korea, and this was further accentuated by the establishment of quotas for the Advance Course in accordance with Air Force needs and budgetary limitations. In conformance with long-range planning by the Air Force to fill requirements for junior commissioned officers, specific quotas were allotted this Detachment at the beginning of the fall quarter 1953. Students accepted under this quota could be commissioned as 2nd lieutenants in the Air Force Reserve upon successful completion of the course.

During the spring quarter 1953, a screening test was introduced in all AFROTC Detachments. This test, called the AFOQT (Air Force Officer Qualifying Test) was given to all students completing Air Science II, to provide a basis for selection into the Advance Course, and to ascertain aptitude and interest in an officer's career—flying, technical, or administrative. It will be used in the future, primarily as a guide in the selection of students for the Advance Course.

Emphasis was placed on the acceptance of college students in AFROTC who would volunteer for flying training, in either a pilot or observer status, and quotas reflected the need of the Air Force for junior officers in this category.

Limited quotas were received, in addition, for technical specialists and administrative specialists. The various categories established are referred to as:

Category I	Pilot
Category IA	Observer
Category II	Technical Specialist
Category III	Administrative
Category IV	(Veterans)

This presented a problem for the graduating class of June 1954, due to the fact that a substantial portion of this class was enrolled in Category III, and could not qualify for Category I, IA, or II. It became necessary for the Air Force to offer these cadets Certificates of Completion in lieu of Commissions. These Certificates in effect gave the recipients an opportunity to obtain a Commission after completion of their 2-year draft obligation. However, during the spring quarter of 1953, an opportunity was afforded graduating seniors to accept a Commission in the Air National Guard of the United States with substantially the same benefits as given reserve officers. However, their term of duty was extended to 3 years rather than the normal 2-year period which was in effect for ROTC graduates (exclusive of those attending flying school who serve a 3-year tour).

**Curriculum**—Beginning with the 1953 fall term all specialties, such as Flight Operations, General Technical, Communications, Administration and Supply, were abolished, and a general program of AFROTC Training was introduced. This new program was established with the objective of training junior officers for the Air Force, giving them a broad background of Air Force operations, and some fundamental courses in the aspects of national security, international tension, and world political geography. Major emphasis is placed on the principles of leadership during the Advance Course.

**Summer Camp**—Cadets who had successfully completed their third year of Air Science were assigned to summer camps for a 4-week period. These camps were scattered throughout the United States, but most of the cadets attending camps during the summers of 1952 and 1953 were assigned to bases in the south and southwest. The purpose of these camps was to provide future officers with an insight into the operation of Air Force Bases. Major emphasis was placed on a motivation towards flying and considerable orientation was given cadets at summer camp to familiarize them with the flying phases of Air Force operation.

**Air ROTC Graduates**—Under the system of quotas established in the various categories cited, the Air Force has endeavored to fulfill its actual requirements based on projected strength from year to year.

**Special Activities**—During the fall quarter 1953, an Angel's Flight was initiated as an auxiliary to the Arnold Air Society of this Detachment. An organization of approximately 16 coeds was formed, and this unit has been very active in social activities, both in the AFROTC and on the campus.

An AFROTC Drill Team was organized in the fall quarter 1952, and this team has appeared at military and civilian functions in the community. They have received much favorable recognition for their performances.

**Faculty**—The faculty of the AFROTC has remained somewhat stable during the last two years, due to the fact that an assignment of this nature was normally made for a four-year period. However, under existing regulations, it is being reduced to a three-year assignment.

TABLE II. MEMBERS OF THE DEPARTMENT OF AIR SCIENCE

Name	USAF Grade	Reported	Relieved
Kermit D. Stevens .....	Colonel	September 10, 1951	
Helmer T. Aasheim .....	Lieutenant Colonel	September 21, 1951	
Darral J. Freund .....	Lieutenant Colonel	September 6, 1950	August 4, 1953
Clarke W. Henkle .....	Lieutenant Colonel	July 21, 1953	
Henry D. Booher .....	Major	August 25, 1949	July 19, 1953
Frank D. Covell .....	Major	June 10, 1952	
Paul A. Eisman .....	Major	August 8, 1951	August 1, 1954
Charles W. Fatzinger .....	Major	May 12, 1954	
Walter H. Grierson .....	Major	July 5, 1949	July 25, 1953
Glen B. Hunt .....	Major	August 3, 1952	October 2, 1953
Nelson A. Roeller .....	Major	July 3, 1952	
Norman L. Widen .....	Major	June 11, 1951	
William P. Brown .....	Captain	February 10, 1951	
Louis C. Jurgensen .....	Captain	August 16, 1951	August 1, 1954
Thomas L. Moffatt .....	Captain	July 24, 1952	August 31, 1953
Kenneth J. Young .....	Captain	August 3, 1951	June 10, 1954
William B. Schnase .....	1st Lieutenant	January 10, 1953	

**Inspection**—The rating system employed by Hq AFROTC for inspecting its Detachments calls for an over-all rating of either satisfactory or unsatisfactory. For each of the past 2 years, the AFROTC unit at the University of Minnesota, has received a "satisfactory" rating in the annual inspection.

**Facilities**—A number of improvements in office accommodations have been provided during the last 2 years, including the redecorating of all offices and construction of individual offices for instructors within the larger office rooms. The Armory at present does not provide sufficient space to handle all ROTC classes, but consideration is being given at the present time to subdividing some of the large classrooms into smaller rooms and providing them with new acoustic ceilings and fluorescent lights. This work is planned in order that all ROTC classes may be conducted in the Armory Building. Air Science I and Air Science II classes are still held in the Aeronautical Engineering Building.

During the winter quarter 1954, drill for all cadets was conducted in the Fieldhouse. This was the first time that drill had been conducted throughout each of the 3 quarters of the school year, and it was considered highly successful. It is hoped that facilities will be available to continue the drill program one day a week throughout the school year.—KERMIT D. STEVENS, Colonel, U. S. Air Force, P.A.S.

## DEPARTMENT OF CONCERTS AND LECTURES

**University Artists Course**—During the past biennium the University Artists Course has continued to present the greatest in the field of music and dance for the cultural entertainment of University students, faculty, staff members, and the general public. The caliber of this series is now rated as one of the world's best. During 1952-53, 30,536 people paid \$42,688.25 to hear concerts by Nadine Conner, the Minneapolis Symphony Orchestra, Rudolf Serkin, William Warfield, Michael Rabin, Marion Anderson, and the Ballet Theatre. In addition, special concerts by the Boys' Town Choir, Ballet Theatre, and the annual charity presentation by the Minneapolis Chapter of the Society for the Preservation of Barbershop Quartet Singing in America attracted 14,609 patrons with receipts totaling \$27,662.75. It should be mentioned that the charity presentation by the Parade of Quartets resulted in a donation of \$6,391.47 to the Variety Club Heart Hospital Research Equipment fund.

Expanded operations during 1953-54 saw 33,255 patrons paying \$47,500.80 for the privilege of hearing concerts presented by Blanche Thebom, George London, Leon Fleisher, Agnes DeMille, Boston Pops, Jascha Heifetz, and Artur Schnabel. Special concerts featured three performances by Sadler's Wells Ballet, a piano recital by Walter Gieseking, a special performance by the Agnes DeMille Dance Theatre, and the annual charity presentation of the Parade of Quartets. These special presentations attracted 29,206 people who purchased \$73,312.00 worth of tickets. The contribution to the Heart Hospital Research Equipment fund totaled \$11,250.00 and necessitated a special matinee performance.

**Metropolitan Opera**—Opera lovers of the Upper Midwest and Central Canada eagerly await the announcement of the four performances of Grand Opera given annually in Northrop Memorial Auditorium by the entire Metropolitan Opera Company of New York. Each year a request for underwriters is made and each year interested patrons over-subscribe the pledge requirement needed to continue these presentations. It should be mentioned that, during the 10 years the University and the Orchestral Association have co-sponsored these presentations, the opera has always shown a small profit and underwriters have never been called upon to make payments on their pledges. In the spring of 1953 the presentations were: Der Rosenkavalier, La Boheme, Samson et Dalila, and Don Giovanni. This past May opera lovers heard La Forza del Destino, Lucia Di Lammermoor, Marriage of Figaro, and Faust.

**Special Cultural Projects**—The University's share of the net profit resulting from Metropolitan Opera presentations has been set aside in a special fund to be used for cultural development projects which otherwise could not

be sponsored. Expenditures of \$7,628.29 for such cultural projects, still leave an unexpended balance at the close of the biennium of \$6,329.71.

**Convocations**—Convocation programs are presented each Thursday morning at 11:30 a.m. during the regular school year except on holidays, vacation, and examination periods. Whenever possible these programs are rebroadcast by KUOM, the University's radio station.

During the biennium a new policy was adopted and a small admission fee was charged for some big name convocations. This makes possible the presentation of higher caliber attractions that the students wanted but which were too expensive to sponsor with a limited budget.

**Special Lectures**—A series of lectures is sponsored to further the discussion of specialized topics for smaller and select audiences. The speakers are secured at the request of department heads to cover topics of special interest to their students. Usually the lectures are made a class assignment by the department involved. Unfortunately the small budget has made possible the sponsorship of only a selected few of the speakers requested. Even then it would have been impossible had not each department helped financially whenever possible.

**Convocations, Lectures, and Scientific Conferences**—To augment the special lecture fund during the past year, the University appropriated \$2,500.00 (supplemented by \$810.00 from the several interested departments) to cover the costs of presenting additional lecturers who had a message of special importance to the members of the University community.

**Summer Session Recreation**—The Department of Concerts and Lectures is responsible for securing and arranging for the presentation of programs covering the cultural aspects of the Summer Session recreation program. The funds for this program come from student recreation fees. The intent is to give them without further charge the best in music and lectures. An average of two programs a week are presented during the Summer Session.

**Drama Advisory Service and Loan Play Library**—The past two years saw the expansion of the Loan Play Library into the Drama Advisory Service and Loan Play Library. During 1952-53 the librarian spent considerable time in conference, research, and planning for the development of this new division.

During 1953-54 this division organized and conducted a series of four play-production workshops as in-service training for high school teachers of dramatics. These workshops, offered in widely-separated communities in the state, were attended by over 140 teachers. In cooperation with the Audio-Visual Education Service, this office is preparing the first in a proposed series of films dealing with specific aspects of play production.

A monthly newsletter was established and mailed to high schools, colleges, parochial schools, and community theaters in the state.

The supervisor made several field trips to communities in the state that requested direct help with specific play-production problems. In addition, many requests for information and advice regarding all major areas of play production and allied fields were handled by correspondence through this office.

During 1953-54 a supplement to the catalog of plays available through this office was prepared and mailed to producing groups in the state.

**University Program Service**—The University Program Service serves two major functions: (1) It provides programs of all types from those of pure culture to those of high entertainment value to public and parochial schools of the area; (2) It maintains a list of approved speakers who are available for commencement speaking. Many schools find it difficult to find highly competent people for this purpose and therefore call on UPS for assistance.

Statistics for the biennium show that substantial gains were made over the last biennium in number of schools and organizations served, number of engagements filled, and total receipts.

To go beyond the statistics, 77 additional schools have been added to the previous figure of 767 schools and organizations served and receipts have in-

creased from \$97,227.92 to \$113,631.32. As a result, this operation has been self-supporting for the past biennium.

In addition to increased service to patrons, the caliber of programs has made definite strides ahead to meet the increasing demands of its public.

Future expansion in volume is anticipated through adding many new schools, now in process of construction, and increasing promotional work in the grade schools of the larger cities in our territory.

**Concert, Theatre and Lecture Service**—The year 1952-53 saw a substantial increase in the number of engagements filled by the Concert, Theatre and Lecture Service (see Table I). However, a sharp drop occurred in 1953-54.

TABLE I. CONCERT, THEATRE, AND LECTURE SERVICE

	1951-52	1952-53	1953-54
Number of colleges and other organizations served .....	103	101	81
Number of engagements filled .....	398	426	349
Total billings .....	\$92,546.87	\$104,538.48	\$89,938.60

Three factors contributed to this drop in 1953-54: (1) Many colleges, because of poor attendance, dropped lecturers from their programs, with a loss of 60 engagements to this service. Assistance to colleges in promotion and in effective utilization of lectures are planned for 1954-55, and a community lecture series will be established; (2) Many community organizations lost money sponsoring the theatre-on-tour and guaranteed-fee bookings dropped. A new organized-audience theatre series is planned in order to develop this program; (3) The number of community artist series has dropped from 36 in 1950-51 to 23 in 1953-54. New methods of campaigning and increasingly careful artist selection and programming should increase membership in these series and bring the total to approximately 30.

A considerable increase in the summer college program (68 in 1952-53; 79 in 1953-54) was achieved by careful analysis of the needs of the colleges and careful selection of talent and programs.

Despite the drop in billings, economies in staff (5 in 1951-52; 3 in 1954-55), more effective use of staff-time, and new methods of operation, this service has been maintained on a virtually self-supporting basis. An increase sufficient to insure complete self-support in the future is anticipated.

**Needed Improvements**—Several basic improvements have been made in Northrop Auditorium, contributing substantially to its effectiveness. Other improvements still vitally needed are: (1) air conditioning of Northrop Auditorium, (2) a freight elevator in the rear of the building to facilitate the transportation of gallery displays to the third and fourth floors, (3) expansion of the stage by some 20 feet to make possible the adequate presentation of ballet and opera, (4) installation of showers for the convenience of opera, ballet, and dance companies, and (5) a new system of lighting the seats under the balcony to eliminate the reflection now experienced by patrons who wear glasses.

A new auditorium seating approximately 2,000 people is needed to meet the ever-increasing demands for concerts and lectures.—JAMES S. LOMBARD, *director*.

## DEPARTMENT OF UNIVERSITY RELATIONS

**General**—During the biennium the Department of University Relations concerned itself with several general efforts: the coordination of the various departments having direct public relations responsibilities; the maintenance of a regular and comprehensive program of information and news about the University—for the general and special publics of the University and for staff members of the University; expanding the effective usage of radio and television for public relations purposes; the preparation of special public relations films; the development of certain major fund-raising efforts; the supervision and coordination of functions and special events on the campuses; and participation in the formation of University policy.

**Coordinating Public Relations**—The Department coordinated the public relations work of various departments principally through weekly meetings of the Publicity Council throughout the two-year period. Attending were staff members representing the Department of University Relations, the University of Minnesota Press, the Department of Physical Education and Athletics, the Agricultural Extension Service, the Department of Concerts and Lectures, the University Theatre, the General Extension Division, KUOM, the Photographic Laboratory, the Audio-Visual Education Service, the Department of Alumni Relations, and the Greater University Fund. From time to time, other University staff members were invited to meet with the Publicity Council in order to plan special events, conferences, and releases to the general public. The director of university relations served as chairman of the Council.

Serving as a group for considering problems of a public relations nature and for giving special advice to the director of university relations, was the President's Committee on Public Relations. This committee of twelve, appointed by the president, met from time to time during the biennium under the chairmanship of the director of university relations.

**Information and News Programs**—The University News Services, operating on the Minneapolis, St. Paul, and Duluth campuses, have made available by press conferences, news releases, and interviews to newspapers, and radio and television stations—on a day-to-day basis—news about the University. Of special interest is the excellent manner in which the editors of newspapers and radio stations over the state have cooperated. Considerable favorable editorial comment about the University was noted throughout the biennium.

A mimeographed publication, "As Others See Us," provides voting members of the University Senate with a thrice-a-year sampling of editorial comment on the University, clipped from Minnesota newspapers and other publications.

Especially for staff members, sixteen issues of the magazine, *The Minnesotan*, were published and sent to the homes of all full-time staff members during the biennium. In its seventh year of publication, this magazine continues to occasion wide and favorable comment. Of particular interest was the commencement of two series—one on the University's Regents and another on the functioning of the Legislature.

During the biennium, eight issues of *Chats* were sent to the homes of all parents of University students.

The Department prepared a monthly *University Calendar of Events*, which was mailed to several hundred organizations, firms, and individuals. The University's "Official Daily Bulletin" was prepared for insertion in each issue of the *Minnesota Daily*, and as a separate publication for the periods of the year during which the *Daily* is not published.

Staff members in the Department have continued to give assistance—as time permitted—to other units of the University in the preparation of special brochures and pamphlets. Of special interest was the design and preparation of the *Home Economics Bulletin*—the first in a series of revised information bulletins for various departments.

**Expanding the Effective Use of Radio and Television**—Recognizing the increasing importance of radio and television, particularly of television, the Department has expanded its activities in these fields. National network programs concerning the University were coordinated by personnel of the Department—including two major documentary films on coast-to-coast television.

An NBC radio program—"College Quiz Bowl"—originated on campus for several consecutive weeks during the fall of 1953, featuring a number of high-ranking students in the College of Science, Literature, and the Arts.

In the spring of 1953, NBC television asked the University to participate in a series on research at the major American universities—to be titled *The Search*. Staff members discussed the program, arranged with NBC to film a documentary in the Laboratory of Physiological Hygiene, and assisted in the filming of the program.

A second NBC-TV program was a four-minute film inserted between the halves of the Minnesota-Pittsburgh game in 1953, during the NCAA Game of the Week. Staff members prepared the film, with an NBC cameraman. This

telecast was the occasion of considerable study and thought concerning the University's current radio and television policy. The NCAA contract with NBC Television was found to be at great variance with the University of Minnesota's policy, but a waiver was given in order to allow the telecast and in order to examine the specific ways in which NBC practices under the NCAA agreement might violate University policy. The film recording of the telecast disclosed several distinct violations of University policy, and the director of University Relations was asked to resurvey the entire field of commercial radio and television programs in which the University might participate, with regard to possible revision of the radio and television policy.

A third NBC-TV program appeared on a coast-to-coast hookup on June 24, 1954. This was a combination live and film report on the development of the new controlled cross-circulation method for correction of heart defects by a team from the Department of Surgery. Staff members worked for more than two weeks with personnel from NBC's Department of Public Affairs in the preparation of the script and the photography. The program was telecast on the *March of Medicine* series, sponsored by Smith, Kline and French Laboratories and the American Medical Association.

In February 1954, members of the Department produced a series of thirteen television programs with the Minnesota United Nations Association which appeared on KSTP-TV until April.

Recognizing the need for a coordinated effort to develop the University's use of television and film, the Department in October 1953 prepared a proposal for the appointment by the president of a Television and Film Council, with representatives from the General Extension Division, KUOM, Agricultural Extension Service, Audio-Visual Education Service, and the Department of University Relations. The president duly appointed this Council, which met frequently throughout the remainder of the fiscal year to discuss short- and long-range plans for the more effective use of film and television.

Throughout the biennium, members of the Department worked on alternative plans for the development of educational, or community, television—cooperating with other departments, with citizens groups, and with the Minneapolis and St. Paul school systems. During the last part of fiscal 1953 the Department acted as the community clearing house for information about educational television, and developed a plan for the activation and financing of Channel 2, Twin Cities, to be operated by a non-profit community corporation.

**Film Production**—During the biennium, Department members produced or began production on several motion pictures, with public relations aspects, on various activities of the University's College of Medical Sciences. These included two series concerning the development of new techniques in heart surgery, and a film about the University's cancer research program.

**Fund-Raising**—During the biennium three major fund-raising efforts became the major responsibility of the Department. In June 1953 the Minnesota Department of the Veterans of Foreign Wars offered to raise funds from within its membership for the construction of a Cancer Research Clinical Institute at the University. The Department was assigned the task of liaison and during the first ten months of the VFW campaign staff members maintained constant communication with the Veterans of Foreign Wars, attending meetings, preparing information, and giving assistance in all phases of planning and publicity for the campaign. By the end of fiscal 1953, approximately \$50,000 had been raised toward the eventual goal of \$450,000 and the campaign continued to gain momentum.

In 1949, Earle Brown of Brooklyn Center, Minnesota, had offered the University a gift of his property, the proceeds from which would be used to construct an Agricultural Short-Course building on the St. Paul campus. During the biennium, the director of university relations participated in the formulation of a plan to develop this property, and as the biennium closed, the plan was under consideration by Mr. Brown and the Board of Regents.

The third major financial effort began toward the close of the biennium, when the director of university relations represented the University in meetings with the superintendents of the Minneapolis and St. Paul school systems and prominent business and civic leaders to develop plans for raising approxi-

mately \$394,000 for the construction of a community television station. At the end of the biennium, the Ford Foundation had offered \$100,000 toward this goal, and business leaders and Twin Cities foundations were responding with offers to join in the effort with substantial contributions.

**Functions and Special Events**—The Department continued to serve as the operating and administrative agency for opening convocation, commencements, the University of Minnesota Week, Charter Day convocation, and the president's reception for graduating classes, as well as for special events, such as the dedication of buildings, and for special conferences and meetings called for the purpose of presenting outstanding achievement awards to distinguished graduates of the University. Advice on matters of policy concerning most of these functions was given by the Senate Committee on University Functions, the chairman of which is the director of university relations.

For the first time in the University's history, audio-visual aids were used by the president in explaining the University's needs and achievements to members of the Minnesota Legislature during the 1953 session. Members of the Department produced an extensive program of slides and film to illustrate a major address by the president to key members of the Minnesota Legislature at a dinner on March 12, 1953. This successful effort was followed by the production of a film based on the address and its visual materials, which was released in October 1953, and titled: "From the President's Desk." After extensive showings to University staff members and students, the film was released through the Department of Alumni Relations for distribution throughout the state.

**Policy**—A major responsibility of the Department continues to be that of making the entire University conscious of the public relations aspects of University policy and administrative procedures. Throughout the biennium many meetings and conferences were called at which were taken decisions influenced by a careful consideration of the public relations implications.—  
WILLIAM L. NUNN, *director*.

—MALCOLM M. WILLEY, *Vice President*.

# Divisions of Business Administration

## PHYSICAL PLANT DEPARTMENT

### *Land*

During the biennium, additions were made to the Minneapolis Campus as follows:

West 110 feet of Lot 10, Block 35, St. Anthony City. West 22 feet of Lot 9, Block 35, St. Anthony City—6,930 sq. ft.

East 50 feet of South 132 feet of Lot 8, Block 35, St. Anthony City—6,600 sq. ft.

South 40 feet of West 125 feet of Lot 7, Block 18, St. Anthony City (subject to 5 foot easement on the north)—5,000 sq. ft.

East 90 feet of Lot 10, Block 35, St. Anthony Village—5,070 sq. ft.

South 60 feet of Lot 10 and South 60 feet of East 24 feet of Lot 9 in Block 35, St. Anthony City—5,400 sq. ft.

South 98 feet of the West 42 feet of Lot 9 and the South 12 feet of the North 67 feet of the West 22 feet of Lot 9 and the North 33 feet of the East 50 feet of Lot 8 in Block 35, St. Anthony City—6,030 sq. ft.

Lots 22, 23, 24, 25, 26, and 27, Block 7 in Cole and Week's addition to Minneapolis—28,103 sq. ft.

The rear or East 40 feet of Lots 9 and 10, Block 18, St. Anthony City—5,280 sq. ft.

Additions were made to the St. Paul Campus as follows:

South 1,026.66 feet of West 117.86 feet of North  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  of Section 21, Township 29, Range 23. Also South 1,026.66 feet of the East 23.57 feet of North  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of Section 21, Township 29, Range 23. Also West 141.43 feet of the East 165 feet of North  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of Section 21, Township 29, Range 23 (subject to County Road "A"). Also South 1,026.66 feet of East 141.43 feet of the West 259.29 feet of the North  $\frac{1}{2}$  of the Northeast  $\frac{1}{4}$  of Section 21, Township 29, Range 23—10  $\frac{4}{5}$  acres.

Additions were made to the Duluth Campus as follows:

Lots 1, 2, 3, 14, 15, 16 in Block 16 in Willard's addition to Duluth together with the northerly half of the alley. Lots 5, 6, 7, 8, 9, and 10, Auditor's Plot No. 8 of Farrell's Addition to the City of Duluth. N- $\frac{1}{2}$  of SW- $\frac{1}{4}$  of SW- $\frac{1}{4}$ , Section 11, Township 50, North of Range 14, West of the 4th principal meridian. N- $\frac{1}{2}$  of SW- $\frac{1}{4}$  of SW- $\frac{1}{4}$  of Section 11, Township 50, Range 14, lying South of Maryland Street.

Additions were made to the Southern School and Experiment Station (Waseca) as follows:

Lots 13, 14, 27, and 28 Ward's Subdivision of NW- $\frac{1}{4}$  of SE- $\frac{1}{4}$  of Section 18, Township 107, North of Range 22, West Waseca County.

### *Sale of Land*

S- $\frac{1}{2}$  of NE- $\frac{1}{4}$  of Section 4, Township 30, North Range 23 West. NW- $\frac{1}{4}$  of NW- $\frac{1}{4}$  of Section 4, Township 30, North, Range 23 West.

East 250 feet of North 500 feet of NW- $\frac{1}{4}$  of NE- $\frac{1}{4}$  of NE- $\frac{1}{4}$  of Township 29, Range 23, West of 4th Principal Meridian—2.58 acres.

E- $\frac{1}{2}$  of SW- $\frac{1}{4}$ , Section 7, Township 116 North, Range 23 West, Carver County—2.75 acres.

A strip, tract, or parcel of land located in the Government Lot 7, Section 8, SW- $\frac{1}{4}$  of SW- $\frac{1}{4}$  of Section 9, and NW- $\frac{1}{4}$  of NW- $\frac{1}{4}$  of Section 16, Township 116 North, Range 23 West, Carver County—4.08 acres.

A strip, tract or parcel of land located in the SW- $\frac{1}{4}$  of SW- $\frac{1}{4}$ , Section 9, Township 116 North, Range 23 West, Carver County—0.9 acres.

### *Buildings and Tunnels*

**Minneapolis Campus**—Contracts were awarded for buildings as follows:

A new Chemical Storehouse is under construction, located south of Fairmount Ave., near 29th Avenue Southeast. The new building will not be large enough to completely remove chemicals from the Minneapolis Campus.

Approximately 17,700 sq. ft. of area will be available, or about 44 per cent of the area estimated to be sufficient.

Total cost of this structure ..... \$200,000.00  
 Source of funds ..... State appropriation

A new laundry building is being constructed near the intersection of Oak Street and University Avenue. This building will contain about 18,000 sq. ft. of floor area. It will be equipped with completely new machinery and replace the present inadequate laundry located at the University Hospitals.

Total cost of this structure ..... \$550,000.00  
 Source of funds ..... University Services

Two south wings are being added to Centennial Hall. These two wings were planned at the time Centennial Hall was built, but could not be constructed because funds were not available. Approximately 46,000 sq. ft. of floor space will be available in the new wings. This will partly satisfy the demand for student housing. Construction will match the existing structure.

Total cost of these structures ..... \$788,414.00  
 Source of funds ..... Services Improvement Reserve

**St. Paul Campus**—Contracts were awarded for buildings as follows:

This aluminum and steel framework greenhouse, and the headhouse, completed Unit No. 3 for the Department of Agronomy and Plant Pathology.

Total cost of this building ..... \$100,000.00  
 Source of funds ..... State appropriation

Approximately 950 feet of new heating tunnel was constructed, providing connections to the New Heating Plant to be located just south of Commonwealth Avenue. It extends to a point 860 feet north of Commonwealth Avenue where it intersects with the present tunnel. This tunnel is of reinforced concrete, 7 feet wide and 7 feet, 10 inches high. Approximately 370 feet of heating tunnel was constructed, extending from the side entrance of the above mentioned tunnel to the southwest corner of the Veterinary Science Building. This tunnel is of reinforced concrete 6 feet wide and 6 feet, 10 inches high.

Total cost of these tunnels ..... \$136,000.00  
 Source of funds ..... State appropriation

Contracts were awarded for two new boilers to be installed in the new heating plant. This new plant will have a total of 4 boilers with a rated capacity of 130,000 lbs. per hr. Two of these boilers will be moved from the present plant.

Total cost of this plant ..... \$1,364,000.00  
 Source of funds ..... State appropriation

**Duluth Branch**—Contracts were awarded for buildings as follows:

The Alworth residence has been completely converted into apartments. This fireproof, concrete framework, brick veneer building is now a very satisfactory apartment house. Nine apartments occupy the three floors and basement. Consisting of one 5-room apartment, three 4-room apartments, and five 2-room apartments in all.

Total cost of this conversion ..... \$32,500.00  
 Source of funds:

Duluth Cottage Income ..... \$ 5,500.00  
 State appropriation ..... 27,000.00

A new Library Building is under construction, located west of the Physical Education Building and north of the Science Building. This building is of reinforced concrete and masonry construction with brick veneer. The building has three full floors.

Total cost of this structure ..... \$700,000.00  
 Source of funds ..... State appropriation

**Rosemount Research Center**—Contracts were awarded for buildings as follows:

A residence was constructed for the superintendent of the research center.

Total cost of this structure..... \$25,000.00

Source of funds..... State appropriation

**Morris**—Contracts were awarded for buildings as follows:

A new Home Economics Building was erected on the site of the old building. It is a reinforced concrete structure with brick veneer. It is fully equipped with kitchen units and other home economics equipment.

Total cost of this structure..... \$250,000.00

Source of funds..... State appropriation

A new Greenhouse and Headhouse unit was constructed. The foundation walls are of concrete blocks and glass frames are of aluminum.

Total cost of this structure..... \$40,000.00

Source of funds..... State appropriation

**Waseca**—Contracts were awarded for buildings as follows:

A new reinforced concrete block Seedhouse was constructed. This Seedhouse is constructed on the farm land owned by the University.

Total cost of this structure..... \$40,000.00

Source of funds..... State appropriation

### *Major Improvements and Alterations*

**Minneapolis Campus**—Five grade rooms in Pattee Hall were remodeled to provide facilities for studying child behavior. Research facilities were also provided by this remodeling.

Nicholson Hall Bookstore was remodeled to provide more efficient service to students and faculty. Additional counter space and smoother flow of traffic has been achieved.

Fluorescent lighting was installed in Burton Hall to provide adequate light intensity on desks and work surfaces.

The Institute of Child Welfare Building heating system was remodeled and modernized.

A new service road was constructed for the Old University High School Building. The new road provides needed access from Pillsbury Drive.

The Experimental Engineering Building was remodeled to replace part of the facilities destroyed by fire at the Oak Street Laboratory.

A new elevator was installed in Millard Hall. This replaces an obsolete elevator and provides better service for the College of Medical Sciences.

At the Heating Plant the concrete coal hopper was reconstructed, emergency pumps were installed to prevent flood damage, and a new storm sewer was completed.

The electrical system in the Chemistry Building was rehabilitated. The system is now adequate for the increased electrical demands.

Hot and cold water systems in the Mines Experiment Station were completely repiped.

A tool crib was installed and is now operating to supply tools for all mechanics in the Physical Plant Department.

A building north of University Avenue between 14th and 15th Avenues was converted into quarters for the Campus Shop, Steamfitter Shop, Electric Shop, Refrigeration Shop, and Shade Shop. A sprinkler system was installed for fire protection.

Portable bleacher sections, with a capacity of 6,500 people, have been purchased for use in the open end of Memorial Stadium.

Contracts were let for replacement of seating throughout the Stadium, and the work is now about half completed.

The third floor of the Administration Building was remodeled. Several departments have been relocated into more efficient quarters.

A new freight elevator was installed on the north side of the Physics Building. It was needed to handle heavy freight for the research shops.

The Physics Auditorium, seating 132 persons, was completed.

The parapet walls of Williams Arena were reinforced. Heaters have been installed to prevent excessive accumulation of snow. The ticket lobby was completely rebuilt.

The interior stonework in Northrop Memorial Auditorium was resurfaced and a new symphony shell was constructed. Seats on the main floor were replaced completely.

Powell Hall floors were completely resurfaced.

The plumbing in Cooke Hall was replaced with copper tubing.

The Center for Continuation Study was partially air conditioned.

The Hydraulic Laboratory sanitary system was renovated.

Coffman Memorial Union has undergone considerable alterations and repair work. An addition to the Campus Club Terrace was installed. Dining room chairs were completely re-upholstered. Building space has been re-assigned to encourage greater use by students.

A new elevator was installed in the Variety Club Heart Hospital.

Constant temperature and humidity rooms were constructed in the Mechanical Engineering Building.

A new service stairway and entrance was constructed on the north side of Ford Hall.

A concrete retaining wall was installed near the Incinerator.

The road from Washington Avenue north to the Psychology Building was resurfaced. A section of the street near Pattee Hall was widened to reduce the danger to children.

A radioactive material supply room was constructed underground near the Heating Plant.

A Civil Defense control center, including communication and plotting equipment, was constructed in the basement of the Administration Building.

The former University High School Building was completely remodeled and is now occupied by the Institute of Child Welfare. Special facilities for children have been installed, and the building adapted to the needs of small children.

Parking Lots with a total capacity of 853 cars have been added at the following locations: North of the Railroad tracks and East of 15th Avenue; near Harvard and Essex Streets; at 17th and Washington Avenues; at Washington Avenue between Union and Harvard; near Cooke Hall; at 514 Washington Avenue; near the Variety Club Heart Hospital; and near the Mines Experiment Station.

Parking Lots with a total capacity of 113 cars were removed at Centennial Hall and Old University High School.

**St. Paul Campus**—The Old Home Building was razed and the entrance retained as a memorial.

The Dining Hall and Cafeteria Building has been repainted and recaulked.

Fluorescent lighting has replaced the incandescent lights in the Horticulture Building.

The ground floor of the Old Veterinary Building was renovated.

Dexter Hall was rehabilitated throughout, including replastering and painting. Damage resulting from the fire in the Farm Garage on October 9, 1953, has been repaired. Rewiring was required.

The Livestock Pavilion was remodeled. Plumbing, gas, and compressed air services were overhauled.

The Dairy Husbandry Building was remodeled to provide needed laboratory space for dairy nutrition work. New concrete mangers and partitions were also installed.

The Josephine T. Berry house was rehabilitated.

The north wall of the Bull Barn was rebuilt.

The roof of Meredith Hall was completely renovated.

A refrigerator plant, removed from Pioneer Hall, was installed in the Cold Storage Plant.

New lighting was installed throughout the Agricultural Engineering Building and all windows replaced in the shops.

Remodeling of the Home Economics Building was completed.

High voltage electric service and increased capacity steam lines were installed to serve the new Greenhouse.

Wood walls in the Horticulture Greenhouse were replaced with concrete.

The Gymnasium Building was completely rehabilitated.

Heating coils in the Agronomy Seedhouse were replaced.

The brine refrigeration system in Haecker Hall was replaced by a Freon system. High temperature pasteurizers and sterilizers, and a spray drier were installed. Also the cheese vats were rehabilitated.

A new concrete floor was installed in the swine barn.

The Snyder Hall electrical system was rehabilitated. Laboratories were relighted, and the remaining alberene sinks replaced with lead. Air conditioning was provided for Rooms 313 and 314.

Extensive work was required to solve the drainage problem at the KUOM transmitter.

Floors and furniture were rehabilitated in Thatcher Hall.

Many sidewalks have been installed, and other miscellaneous work accomplished in connection with the agronomy seed stocks. A new ventilation system and dust collector were also installed.

All greenhouse benches were replaced in the Agronomy Greenhouse.

A new condensing unit was installed for the constant temperature room in the Veterinary Clinic.

New heat controls and water mains were installed in the Animal and Poultry Husbandry Building.

**Duluth Branch**—Roads and sidewalks in the vicinity of the Physical Education Building have been installed.

A new football field and a track were constructed.

A steel ROTC Building was constructed.

A base was laid down and graded for a road to the Library and Student Center.

Walks were graded and a lighting system installed between the Science Building and the Physical Education Building.

**Northeast Experiment Station**—The Old Dairy Barn was razed and replaced with a machine shed.

The superintendent's residence was remodeled.

**Rosemount Research Center**—A fireproof, concrete and brick addition was added to building No. 217, the main office building.

The 110,000 volt electrical distribution system was rebuilt. A new 110,000 volt transformer station was also completed.

An entire building was moved in and attached to No. 302 to house new wind tunnel facilities.

Gutters and eaves on many buildings were repaired, and many buildings were covered with asbestos shingles.

A sewage disposal system and sewer system was installed for 25 houses.

Extensive rehabilitation and conversion of igloos into barns was accomplished.

A large amount of road repair work was completed.

**Morris**—The electrical service system to most of the barns was completely replaced.

The Old Home Economics Building was razed.

**Crookston**—The Home Economics Building was remodeled to provide modern instructional facilities.

**Waseca**—Roads, sidewalks, and sewers were installed. The landscaping and planting has been completed. Tile drainage has been provided around the building to help correct the wet ground conditions.

**Grand Rapids**—A new heating plant was installed in the Main Building, supplying both the Main Building and Dormitory. A major renovation job was accomplished on the roof of the Main Building.

A machine shed and a bull barn were constructed.

The hog feeding platform and floor were rebuilt. This has been connected to the sewer system.

A new cafeteria counter was installed in the Dormitory.

### *Major Physical Plant Needs*

**Minneapolis and St. Paul Student Housing**—The removal of temporary housing for students remains a pressing need. Permanent structures should be erected to house students, both married and single. The existing temporary housing is increasingly expensive to maintain and the cost of complete rehabilitation is prohibitive.

**Minneapolis Campus**—One problem seems to overshadow all others. This is the acute shortage of land. The location of buildings and facilities needed by the University has been difficult for several years. If the University is to satisfy the demands of the state, expansion seems inevitable. However, the University now faces a situation that can only be solved by acquiring additional land in the vicinity of the Minneapolis Campus. This need is now, not in the future.

The cost of utilities supplied the University has been increasing sharply due both to rate increases and increased consumption per student. A study is being made of the feasibility of installing an electric generating plant to make use of exhaust steam, thereby reducing electric power costs.

**St. Paul Campus**—It is believed that in the interests of over-all economy, several over-age buildings should be razed and replaced. These buildings have become fire hazards, costly to maintain, and unsatisfactory for the research and instructional activities carried on in them. A shop-storehouse building would also be an economical investment. No satisfactory building now exists for this purpose.

**Outlying Stations**—The general condition of the Physical Plant at the outlying stations is poor. This is the result of many years of marginal or inadequate maintenance. Sufficient funds should be earmarked for maintenance at these stations. Also the designation of a liaison person at each station should facilitate maintenance. General rebuilding may soon be the only answer to improvement of the Physical Plant at some of the outlying stations.—ROY V. LUND, *supervising engineer*.

## OFFICE OF CIVIL SERVICE PERSONNEL

**Introduction**—During the biennium labor shortages continued, but eased slightly during the second year. The assignment of additional office space in the Administration Building permitted the allotment of more space to the Personnel Records Division. The physical separation of the Civil Service Employment Office from the Student Employment Office constituted a major improvement. Now for the first time, applicants for University Civil Service positions are provided accommodations that are reasonably comfortable and private and not too crowded.

By having classroom space adjacent to the Student Employment Office, much better arrangements for the rush periods can now be made. The importance of having such expansion space available will be more fully appreciated as an increasing student work load appears in the coming years.

**Employment**—During the greater part of the biennium, a high demand for personnel continued with a corresponding small number of qualified job seekers. The constant narrow margin between the number of applicants and the number of vacancies made it extremely difficult to perform employment functions and protect the University from serious staffing problems. There was an over-all ratio of only 1.9 applicants for each vacancy. It was only during the latter few months that a slight easing in the labor market appeared, limited to the unskilled, semi-skilled, and beginning clerical areas. Finding

well-qualified engineers, scientists, accountants, librarians, machinists, and secretaries was still almost an impossibility.

Despite the generally high turnover of the labor force at the University, there was a small decrease in terminations to 2,660 as compared to 2,760 previously. This decrease was due to the labor market change during the latter months in the unskilled and service areas. Most terminations were in the secretarial and professional categories. One-fourth of the terminating employees left for other employment due to low salaries; another one-fourth left due to home duties, marriage, and pregnancy; and 16 per cent left because of change of residence. Only 52 left because of working conditions, and those leaving for personal reasons dropped to 122.

A questionnaire survey was conducted jointly by the Employment Division and the Industrial Relations Center on reasons for termination on employees who had been away from the University job 3 to 18 months. A three-fold purpose existed for conducting this survey. (1) Could we obtain additional information on reasons for termination, either personal or working conditions, which would aid us in improving such situations and thereby eliminate turnover. (2) Could valid information be obtained by such a post-exit questionnaire. This was a question of great interest also to the Industrial Relations Center. (3) Should an exit questionnaire system be continued or should consideration be given to establishing a definite personal exit interview system to aid in discovering and eliminating causes for turnover.

While the project has not been completed, preliminary results indicate that valid information can be obtained in this way and that such information is valuable in taking steps to improve employee relations and working conditions.

A total of 4,292 vacancies occurred, a decrease of 5 per cent (242) from the previous biennium. The greatest portion of the small decrease in number was in the unskilled, the custodial, and the food service areas. These areas decreased from 839 to 572 while the professional and other areas increased. Forty-four per cent of the total vacancies (an increase of 2 per cent over the previous period) were again in the clerical, administrative, and fiscal service, with the majority of these being in the beginning typist, stenographer, clerk, and secretary classes.

As a result of a tight labor market induced by the Korean War, added recruiting efforts were necessary: the addition of a staff member to assist in recruiting, keeping the office open one night per week so that employed people could make application, wider public distribution of vacancy listings, more newspaper advertising, and publicity in vocational and high schools including personal visits to such schools. University employees, newspaper advertising, and school agencies proved to be the best sources of applicants.

Additional research projects were conducted to develop aids to better recruiting, screening, and selection of more stable staff. A weighted application blank was developed for selection of building caretakers. Results indicate that this has aided materially in cutting down turnover and vacancies. Another was developed for selection of secretarial and stenographic staff. While this latter study has not been completely validated, it too is providing us with a means of selecting people who possess characteristics of the more stable employee.

Exceptions to the University policy which prohibits employment of relatives and aliens were continued. Active recruitment of relatives and consideration of aliens took place for positions where the labor supply was extremely short. Well-qualified relatives were employed but were not permitted to work in the same department. In November 1953, payrolls showed 100 aliens employed. These were displaced persons, quota immigrants, and wives of foreign students from 26 foreign countries.

To aid in selection of qualified applicants, the testing program increased during the period by 9 per cent in the number of applicants tested (4,289 compared to 3,854) and 13 per cent in the total number of tests administered (14,204 as opposed to 12,600 in 1950-52).

While there were only 1.9 applicants (a total of 7,718 new and 559 promotion and transfer) for each vacancy, it was of even greater concern when there were only 4,875 applicants referred or 1.1 qualified applicants available

for referral for each vacancy. A total of 4,024 placements were made (2,942 new applicants, 464 former employees, 424 promotions, and 194 transfers).

Physical examinations for all regular payroll employees were administered. Again the number increased to 1,524 examinations compared to 1,437 for 1950-52. This increase occurred despite the change made in policy to administer the examination during the fifth month of employment rather than the first as was previously done. A survey was made on the number of employee terminations and the points at which such terminations occurred during the probationary period. Results showed that, by scheduling physical examinations during the last two months of the probationary period, considerable savings would result.

Personnel transactions (documents processed effecting employee changes) increased also to a total of 33,625 compared to 28,629 for the previous biennium. This total includes 14,131 civil service actions, 9,039 student, and 10,455 academic. The total of 1,639 civil service promotions, transfers, reclassifications, and demotions remained about equal to the previous period.

**Student Employment**—The work of the Student Employment Bureau resulted in the following biennial totals: Interviews, 35,751; Applicants, 14,396; Vacancies, 14,095; Placements, 10,464; Earnings, \$7,189,503.

With the exception of the number of interviews and the amount of earnings, these data show a downward trend for the past two years.

The number of individuals applying for work and the number of job vacancies available both dropped approximately 18 per cent from the 1950-52 period. Placements, however, were only 5 per cent smaller. This was a satisfying achievement in view of the short supply of jobs during much of the biennium, a situation which became acute in the second year as layoffs occurred and general unemployment increased.

Because of these conditions the work load of the Bureau, as measured by the number of interviews conducted, increased 7 per cent in spite of the decline in the number of job seekers. As jobs became increasingly harder to locate, many repeat visits to the office were often necessary before placement could be effected. The 14,396 individual student applicants called at the office an average of 2½ times each. In the preceding biennium the per-applicant number of interviews was slightly under two.

Student earnings for the last two years amounted to \$7,189,503, an increase of nearly 3½ per cent over 1950-52. The earnings from off-campus jobs, which is an estimated amount, dropped 25½ per cent in the last year of the biennium due to the dearth of off-campus work, but high earnings the first year brought the over-all increase in off-campus earnings up to 5 per cent for the biennium. The number of students on University jobs was almost identical in each biennium. However, the University pay increase effective July 1, 1952, brought the total campus earnings for 1952-54 considerably above the preceding two-year period.

The Student Employment Bureau administers the work scholarship program for freshman students. The last two years saw 85 students placed in campus jobs through this instrumentality. These are all high ability students who, without this financial support, may have found it difficult if not impossible to come to school.

**Position Classification Plan**—University departments set up 856 new positions during the biennium. Of these new positions, 834 were classified as requested, 12 to a lower level, 1 to a higher level, and 9 into a different class at the same pay level as requested.

Employees submitted 417 requests for reclassification of their positions. Of this total, 65 were denied, 26 were reclassified to a different class than requested, and the remaining 315 were reclassified as requested.

Twenty-seven new classes were set up and approved and 27 obsolete classes were abolished, leaving the total number of classes at 497, the same total as at the end of the 1950-52 biennium.

During the biennium, three classification surveys were made: (1) of 95 positions in Agricultural Schools and Experiment Stations at Crookston, Morris, Grand Rapids, Duluth, and Waseca; (2) of 85 secretary positions; (3) of 221 food service positions. Of the total of 396 positions surveyed, 32 were reallo-

cated to a higher class, 8 to a lower class, and 16 to a different class at the same pay level.

**Pay Plan**—During the biennium, no general (across-the-board) adjustment was made in University pay rates. However, there was a change made in the cost-of-living formula upon which general changes are based.

On January 1, 1953, the Bureau of Labor Statistics set the cost of living at 100 for the average of prices between 1947 and 1949. Previously the base period was 1935-39. To meet this change, the Legislature changed the State Civil Service law, converting the old base period of 100 to 61.5 and reducing the points necessary for an adjustment from 6.5 to 4. In other words, the Legislature made a statistical adaptation of the old law without changing the basic policies or nature of cost-of-living increases.

The cost-of-living index on January 1, 1954, increased above the 116 mark and thereby justified a one-step cost-of-living increase effective July 1, 1954.

During the biennium, 15 classes were placed in higher pay ranges as a result of similar action by State Civil Service. In addition, similar action was taken for 51 classes resulting from studies of internal relationships and community pay rates.

**Employee Training**—The Training Division developed a three-way approach to employee training and supervisor development during the biennium and broadened the variety of its training program offerings in order to begin to implement this approach.

The three-way approach to training involves: (1) training of supervisors in techniques useful in carrying out such functions as employee orientation and training, work analysis, planning, assignment, follow-up, measurement, and reporting; (2) systematic orientation of new employees to acquaint them both with the University as a whole and with their individual departments, and to instill an understanding of what is expected of them; and (3) thorough-going skills training for all employees in standard University work methods.

Supervisor training began through offering eight courses: What's Expected of a Supervisor; How to Orient and Train New Workers; Work Analysis and Simplification; Planning, Scheduling, and Measuring Work; Work Assignment and Follow-Up; Understanding Yourself and Others; Communication Techniques; Civil Service Personnel Policies. Materials were developed for these courses during the biennium, and most of them were tested out with several groups of supervisors in the Physical Plant Department and University Services. Results in these groups showed an increased appreciation of supervisory responsibilities and a gradual change in attitude to more aggressive management; the supervisors found many ways of improving operations in their units with the use of the techniques studied.

Orientation training was partially organized and tested during the biennium. Experimentation showed the need for both central orientation for new Civil Service workers (to the University as a whole) and departmental orientation (to the immediate work unit). A motion picture entitled "This Is the University of Minnesota" was produced, around which a session to acquaint new Civil Service workers with the over-all functions and operations of the University was to be built. Plans were made for this session to be taught centrally, bringing together new employees of all Civil Service classifications from all University departments on the Minneapolis and St. Paul Campuses. This central session will concentrate on clarifying the functions of teaching, research, and service and how the work of each employee contributes to all of these; answer questions on personnel policies; and alert employees to the importance of public, student, and faculty relations in telephone and face-to-face contacts. Plans were made for this central session to be integrated with steps taken by the immediate supervisors of new employees to introduce them carefully to the individuals, the organization, the facilities, and the work of the department in which they will work.

Skills training for new workers was conducted and developed in several directions. The University Business Procedures Training Course for new departmental secretaries and other key clerical personnel continued to be offered: 172 girls completed the course during the biennium. The Budget Preparation Short Course was conducted once in the spring of each year of

the biennium: all clerical personnel involved in budget making (approximately 125) attending. Substantial progress was made toward development of a Basic Office Practices Training course for beginning level clerk-typists and stenographers. In addition to these three courses, which are skills training courses available to the personnel of all University departments, the Training Division helped several departments develop specialized skills training courses in work methods peculiar to their operations. Supervisors in these departments were trained in work analysis and employee training techniques, training guides and visual aids were produced for them, and they were helped to start the training of new workers and the retraining of experienced workers. The Custodial Skills Training Program, the Truck Driver Training Program, the Food Service Training Program, and the Bookstore Training Program were the most fully developed of such departmental skills training programs during the biennium.

The three-way approach to training thus amounts to: (1) the supervisor being stimulated to recognize his responsibilities, especially for training new employees, and being trained in modern supervisory techniques; (2) the Training Division and the supervisor working together to properly orient new workers; and (3) the Training Division offering some skills training courses for employees from all departments, while helping supervisors develop other specialized skills courses adapted to departmental and unit needs.

The Regents' Scholarship Program and the program under which employees may register in University courses paying their own fees, but arranging for time away from work to take classes, were continued on the same basis as in the previous biennium.

**Employee and Union Relations**—For the first time in many years, union relations failed to occupy the publicity spotlight. The highlights of the biennium in the area of union relations follow:

Beginning in the fall of 1952, the University decided to let contracts for as much of their alteration work as possible. The construction trade unions protested because this policy resulted in a lay-off of many of their members. It was the University's position that work would be let out on a contract as long as it could be done with less delay and at lower costs. The experience to date justifies the continuation of this policy.

For the first time, an adjustment panel authorized under the Public Employees No Strike Act (1951) was set up to hear a wage complaint on the part of the Minneapolis and St. Paul Operating Engineers' unions. C. O. Nygard representing the employees, C. E. Larson representing the University, and W. U. Hauser selected by the two members as the third member of the Board, constituted the panel.

In their report, they defined the issues as follows: (1) Are the wages paid by the University of Minnesota to the operating engineers and firemen employed on the Minneapolis and St. Paul Campuses comparable with those paid in private industry in this area? (2) If not, is the University of Minnesota in a position to grant any increases in wages to those employees?

Their findings with respect to these two issues can be summarized as follows: (1) The wages for Operating Engineers and Firemen are less than the wages paid in private industry, keeping in mind comparable plants. The additional fringe benefits at the University do not make up for the difference in wages; (2) The University rates for these classes are comparable to salaries paid to State Civil Service employees, and the University, because of the proviso in its Appropriations Act, cannot pay more.

The report upheld the University's position that no changes in rates could be made and at the same time affirmed the union's position that University rates were below those of industry.

In February 1953, the University received a proposed Collective Bargaining Agreement from Public Building Service and Hospital and Institutional Employees Union, Local 113. After a series of meetings with the union, it was apparent that the wage issue could not be solved, and therefore no agreement was reached on any part of the union's request. The dispute was referred to the state labor conciliator, but efforts at conciliation failed. At this point, the union wished to avail itself of fact finding under the Hospital No Strike Act, while the University contended that an adjustment panel under

the newly passed Public Employees No Strike Act should be used. The labor conciliator referred the matter to the attorney general, who determined that fact finding was available to the union despite the other law. The Fact Finding Commission, appointed by the Governor, consisted of: Beldin Loftsgaarden (public), A. P. Eberl (labor), and Donald F. Pratt (industry).

The Commission held its first meeting with the University and the union on June 29, 1954. Early in this meeting the union demanded that the Fact Finding Commission make an immediate ruling on whether or not laundry workers were to be included as hospital employees within the meaning of the Hospital No Strike Act. The University contended they were not. The Commission ruled that they would not decide on issues as they arose but could only consider and recommend after all facts were submitted. As a consequence, the union withdrew and no further meetings were scheduled.

During this period, the printing and construction trades included in their contracts direct payment by the employer into welfare and vacation-holiday funds. The University, despite considerable pressure, refused to make such payments into the fund but instead added these payments to the current hourly wages and paid them directly to the employee. While the issue is settled for the moment, the pressure will mount as more contracts include similar provisions.

**Civil Service Committee**—Two new appointments were made to the Civil Service Committee during this period, with Professor James W. Stephan succeeding Professor Lloyd M. Short, and Professor Richard T. Arnold replacing Professor Ralph L. Dowdell.

Nineteen committee meetings were held during this period, which included the hearing of three appeal cases. Two involved classification, and one related to a rate problem.

**Looking Forward**—The Office of Civil Service Personnel in presenting its report for the biennium has followed the same topical outline of previous reports. This report makes liberal use of statistical data to indicate the work load in various areas. It should be emphasized, however, that real personnel goals are measured in terms of qualitative data—not quantitative.

It is not singularly significant how many applicants were hired, but rather how carefully they were interviewed and screened, how they were handled, what considerations were shown them. Similarly, it is not alone important how many employees completed a training course, but how it helped them, how the department and the University benefited.

While some qualitative evaluation of our program occurs on a day-to-day basis, we must seek to extend this appraisal on a more extensive and organized basis. Only by continuing personnel research of this kind can we effectively evaluate and improve the various services.—HEDWIN C. ANDERSON, *director*.

## UNIVERSITY SERVICES

Those departments of the University which provide nonacademic services to students or other University Departments, previously designated as Service Enterprises, were renamed University Services at the beginning of the biennium.

**University-operated Student Housing**—Centennial and Pioneer Halls for men students were occupied to capacity at the beginning of each school year, and could not accommodate many students who made application after the dormitories were filled. As a result of this shortage of dormitory accommodations for men students, preparations were under way at the close of the biennium for completion of the two planned wings for Centennial Hall. Dining, lounge, recreation, and office facilities were provided in the original construction of Centennial Hall to serve the 200 spaces being added.

Comstock Hall for upper-class women students, Sanford Hall for freshmen and upper-class women, and Winchell Cooperative Cottages for women were occupied to capacity, also, at the beginning of each school year. One hundred of the single rooms in Comstock remained double-decked to increase accommodations for women applicants. Living conditions in the double-decked

rooms are crowded and barely acceptable, since space and facilities were originally designed for one occupant. Comstock, like Centennial, was constructed with the intention of eventually adding wings to house 225 additional girls, and when these wings are added the double-decked rooms will be re-converted to singles. Thirty of the single rooms in Sanford similarly remained double-decked to satisfy dormitory applications.

In the spring of 1953 the north cafeteria in Pioneer Hall was converted into a snack bar and recreation area for residents of both dormitories. Extensive improvements were made in Sanford, with the purchase of new dressers and desks for student rooms and the installation of a permanent stainless steel cafeteria counter to replace the improvised counter which had been used since cafeteria service was initiated.

Recruitment of resident counselors for dormitories was difficult because qualifications required for these positions are similar to those for academic appointments at considerably higher compensation. A step to alleviate the problem was accomplished within the biennium in establishing remuneration at \$50 per quarter in addition to room and board. The counseling program has proved its value in many ways, including commendable honor point averages for dormitory residents and responsible and effective student governments.

To acquaint prospective University students throughout the state, parents, and other interested groups with University of Minnesota residences, a colored, narrated film, entitled "Living on Campus," was produced in 1953. The film relates campus living to other campus activities and is available for use through the Audio-Visual Education Service.

In the summer of 1953 the University of Minnesota was host to the annual conference of College and University Housing Officers.

In May 1953, a program for continuance of the Como Avenue and Grove East trailers, prefabs, quonsets, and metal barracks was formulated. As a result of that planning, expansible trailers were sold in the spring of 1954. The prefabs were examined in the spring of 1954, found to be in condition for further occupancy, and retained in view of continued demand for them. The quonsets and metal barracks were in need of extensive floor replacements, and rehabilitation of these units for several more years of use was begun. Continued demand for housing in the project made it necessary to limit assignments to married students with children.

Thatcher Hall apartments were released for graduate student housing in the fall of 1952, after having been used temporarily for new academic staff members while the need was acute for University assistance in their housing. A long waiting list was maintained consistently, and housing was restricted to families with children, with Minnesota residents being given first priority.

**Staff Housing**—Services of the Staff Housing Bureau during the biennium are shown in the accompanying table.

	1952-53	1953-54	Total
Interviews .....	490	562	1,052
Purchase of homes through complete service of Bureau .....	0	2	2
Listings—rooms .....	108	121	229
Listings—rentals .....	846	792	1,638
Rental accommodations other than University-owned arranged directly through Bureau:			
Families .....	43	36	79
Couples .....	56	50	106
Single men and women .....	31	49	80

Gratitude and appreciation expressed by some applicants and the feeling of dependence shown by others indicate that the Staff Housing Bureau remained valuable as an aid in securing and retaining new staff members at the University.

Administrative responsibility for Kewanis Court Apartments was assigned to the Staff Housing Bureau July 1, 1952. Policy was established to fill vacancies with University staff members. At the close of the biennium, 19 of the 29 apartments were occupied by University employees.

**Eating Facilities**—In the spring of 1953, a Supervisors' Training Program was instituted at Coffman Union Food Service and Shevlin Cafeteria, with

training sessions conducted by a personnel representative, for the purposes of improving customer service, increasing business volume for most efficient operation, and orienting new employees. The program was subsequently extended to dormitories with the aim of giving student residents better service through more competent training and efficient functioning of employees.

Effective steps were taken to speed up Coffman Union Food Service Cafeteria lines, to keep food hotter and more palatable on the counter, to make the cafeteria a more comfortable and attractive place, and to improve employee attitudes toward customers.

**Other Services**—Painting and decorating and repairs and replacements for all University Services departments are, as far as practicable, carried out through a continuous program, so that approximately equal amounts are done in each department from year to year.

In the Milk and Cream Department, a reversible power-driven case conveyor was installed, to carry cases and cans from the cooler to the truck loading dock and empties from the truck dock to the bottle washing room, for a saving of effort and payroll.

Two new permanent-type refreshment stands were added to Stadium Stands in the football stadium, to serve under more sanitary conditions and more adequately the customers at the bowl end of the stadium. The permanent stands replace a number of small temporary stands which detracted from the neat and orderly appearance of the concourse.

The Audio-Visual Education Service Production Department completed several films in the biennium, including the following: "From the President's Desk," a seventy-five minute color motion picture report to the people of Minnesota on activities of the University, and "One Victory," that portion of the same film pertaining specifically to heart research; "University Highlights 1951-52," and "University Highlights 1952-53"; "Taconite Processing"; "Minnesota Brown Trout"; "Marsh Waters"; "Youth and the U. N."; and "Magnetic Tape Recording." A new contract was negotiated with Syracuse University and the Mutual Security Administration, running from November 16, 1952 through July 31, 1953, for supplying from the Production Department four men and equipment for production of educational films in Iran and adjacent areas. Over 50 films were produced during the program. At the expiration of the contract, one member of the staff was retained in Greece under a new contract between the University and Syracuse University. Net earnings from the Iran Film Project were used for establishing a 16 millimeter film processing laboratory. Since there has been no local commercial film-reversal processing plant, it is expected that considerable benefit to the Department will be demonstrated in speed of processing, quality control, and financial savings.

Each fall audio-visual workshops were attended by approximately 80 faculty members. The purpose of the workshops was to familiarize the University staff with services of the Department, new equipment, and operating techniques, and to obtain from them suggestions on how service might be improved.

Beginning July 1, 1952, administrative responsibility for the Photographic Laboratory on the St. Paul Campus was assigned to University Services. For the first time in the Laboratory history, air views of the St. Paul and Minneapolis campuses were made. The photographs were used considerably by departments in displays, bulletins, and other publications. Another type of photograph added was that of groups and activities during short courses, conventions, and other meetings. By high-speed processing the finished prints were delivered in time for participants to take photographs home with them. During the biennium, the thousands of negatives older than twenty years were checked, with the assistance of the Archives Division of the Library. Many were found to be of extreme importance in the pictorial history of the University, and these were transferred to the Archives Division on the Minneapolis Campus and cross-indexed for ready availability to users. Those negatives which obviously were of no future benefit to the University were discarded. The vertical copy and specimen camera was rebuilt and modernized to incorporate such features as a motorized lift for both camera and operator, remote selection of the three lenses indicated by lights, and remote selection of lens diaphragm which also is indicated by a series of lights.

The Scientific Apparatus Central Shop received from surplus equipment valuable machines and tools, including a radial drill press, vertical milling machine, grinder, hand mill, small vertical mill, tool room lathe, sensitive high speed drill press, and drill grinder. This equipment was reconditioned and proper accessories purchased, and use of the machines has practically tripled the shop's productive capacity and considerably improved the methods of fabricating parts. Large and medium-size glassworking lathes were installed during the biennium in the Glassblowing Shop. In addition to work of a repetitive nature for classrooms, and repair work, a great deal of work centered around cancer, heart, and other medical research, and many jobs required complete designing before machining and fabricating could be started. A few of the larger jobs done in the biennium include a precision scale for automatic weighing and pricing of gold in Dentistry; a timing device for a fraction collector to give one revolution of a capillary tube in 4, 8, 16, and 24 hours, for general research in pharmaceutical chemistry and related fields; a mechanical device for small animal lung experiments on carcinogenesis, for University Hospitals; two synchronous stirrers having change gears for speeds of 300, 600, and 900 revolutions per minute, for Cancer Biology; a hydraulic pressure device, and bombs, capable of holding pressure up to 3,500 pounds per square inch under water, for the Geology Department.

New services of the Printing Department in the biennium include the printing of all University diplomas, which formerly were engraved and hand-lettered. An Ozlid reproducing machine has been added, principally for reproducing building plans for Physical Plant.

Effective July 1, 1952, administrative responsibility for operation of the Bindery was assigned to University Services. This department repairs and binds books, pamphlets, periodicals, maps, and folios for the University Libraries and all other departments.

During the 1953-54 year plans were approved for construction of a new laundry. For several years, the existing University Laundry has been inadequate to serve the needs of the University of Minnesota Hospitals as well as all other University departments—around 150 in total—requiring laundry services. A University-owned laundry is virtually essential for the operation of the Hospitals. With the increase in the bed capacity of the University Hos-

### Comparative Earnings, University Services Departments

	1952-53	1953-54
Centennial and Pioneer Halls .....	\$ 693,271.87	\$ 767,030.24
Ada Comstock Hall .....	286,136.01	272,167.38
Sanford Hall .....	165,734.84	173,702.05
Winchell Cottages .....	19,938.27	21,047.04
Como Avenue and Grove East Housing Project .....	346,492.47	314,005.62
Thatcher Hall .....	29,320.96	29,200.30
Kewanis Court Apartments .....	16,767.35	18,166.67
Duluth Branch Cottages .....	2,216.50	2,260.41
Center for Continuation Study Hall .....	38,531.32	40,184.80
Coffman Union Food Service .....	454,970.54	487,302.52
Shevlin Hall Cafeteria .....	34,547.92	39,539.46
Milk and Cream Department .....	150,824.57	143,250.56
Cold Storage Plant .....	524,892.03	529,780.86
Stadium Stands .....	90,119.75	99,394.03
Audio-Visual Education Service .....	122,433.68	130,704.32
Photographic Laboratory (St. Paul Campus) .....	27,285.86	29,762.25
Printing Department .....	364,396.61	354,960.16
University Bindery .....	50,001.41	48,802.43
Mimeograph Department .....	54,481.42	50,248.00
Mimeograph and Bulletins (St. Paul Campus) .....	41,740.19	43,353.47
University Laundry .....	211,574.62	205,209.29
Post Office .....	10,752.39	11,676.79
Transportation .....	11,890.74	16,862.41
Locker Rentals .....	5,233.33	6,099.44
Como Clinic Building .....	550.00	550.00
Dormitory Snack Bars:		
Centennial and Pioneer Dens .....	32,513.93	19,385.14
Sanford Hall Candy Counter .....	5,744.62	4,333.14
Ada Comstock Hall Candy Counter .....	12,113.50	12,078.30
Inter-Campus Trolley .....	18,473.31	14,918.55
Scientific Apparatus Repair Shop .....	40,392.92	35,461.55
	\$3,863,345.13	\$3,920,437.18

pitals making the present facilities seriously deficient, a new and improved laundry three times the present size, with modern labor-saving equipment was necessary. The estimated operating budget indicates a complete amortization of both building and equipment.

The Transportation Pool vehicles, including 6 passenger cars, 3 station wagons, and 2 trucks, were used by 90 departments in 1952-53, and by 99 departments in 1953-54, for field trips and other University needs.

Effort has been made during the biennium to increase the efficiency of truck drivers assigned to Truck Service vehicles, to reduce vehicle operating costs, and to reduce number and cost of accidents. Annual driver-training courses for full-time University truck drivers were conducted each fall one hour weekly for eight weeks.

The close of the biennium marked the discontinuance of student boxes in the Coffman Union Post Office, based on the recommendation of the Union Survey Committee for reallocation of space in Coffman Union. General delivery service has been maintained for students wishing it, at the Post Office contract station which remains in its former location.

On June 19, 1954, the Inter-Campus Trolley service was converted to bus service. On a trial basis, from November 2, 1953, through Spring Quarter, 1954, a single adult fare was in effect for University students with identification cards using Inter-City service going to and from school.

The preceding table shows comparative gross earnings for both years of the biennium for departments operated under the central administrative office for University Services.—CLINTON T. JOHNSON, *director*.

### SUMMARY OF CASH GIFTS, 1952-53

Description	Number	Amount	Total
<b>Loan Funds</b>			
New .....	6	\$ 52,098.10	
Additions to previous gifts .....	4	225.86	\$ 52,323.96
<b>Scholarship Funds</b>			
New .....	36	\$ 85,982.73	
Additions to previous gifts .....	78	121,174.33	207,157.06
<b>Fellowship Funds</b>			
New .....	15	\$ 105,775.55	
Additions to previous gifts .....	42	335,538.82	441,314.37
<b>Prizes</b>			
New .....	1	\$ 25.00	
Additions to previous gifts .....	35	1,330.00	1,355.00
<b>Research Funds</b>			
New .....	70	\$ 686,436.78	
Additions to previous gifts .....	34	1,259,914.60	1,946,351.38
<b>Miscellaneous Funds</b>			
New .....	34	\$ 276,974.14	
Additions to previous gifts .....	61	391,870.12	668,844.26
<b>Totals</b> .....	<b>416</b>		<b>\$3,317,346.03</b>

### CASH GIFTS, 1952-53

#### Loan Funds—New

Amount		Year Established
\$ 25,076.27	From the Estate of Stanil Toncheff for the establishment of a loan fund .....	1953
15,249.00	From the Estate of Anna Marie Uglum to establish a loan fund to aid worthy and needy girls of Scandinavian nationality and of Lutheran faith .....	1952
5,000.00	From patrons of the Duluth Junior College to establish a student loan fund at the Duluth Branch .....	1952
4,000.00	From Charles L. Horn to establish a loan fund for young men attending the Law School in memory of Henry J. Fletcher .....	1952
1,697.83	From the Estate of Ronald P. Nelson to establish a fund for the purpose of making loans to needy students .....	1952

Amount		Year Established
1,075.00	To establish the Vernon W. Olson, Jr., Memorial Loan Fund for deserving young men and/or women attending the Law School who need financial assistance .....	1952
	\$1,010.00 Vernon W. Olson	
	50.00 Audrey B. Van Deren	
	15.00 Dorothy Marie Oerting	

\$ 52,098.10

*Loan Funds—Additions to Previous Gifts*

\$ 110.00	Engineers Bookstore Loan Fund, through the Greater University Fund .....	1926
60.86	Class of 1902 Loan Fund, through the Greater University Fund .....	1928
50.00	Householders' Student Loan Fund, through the Greater University Fund .....	1942
5.00	Anne Dudley Blitz Loan Fund from Mortar Board .....	1951

\$ 225.86

*Scholarship Funds—New*

\$ 28,660.06	Bequest in will of Mrs. Julia B. Davidson to establish scholarships for young men, graduate or undergraduate, who are financially unable to continue their education .....	1953
18,000.00	From American Cancer Society for a scholarship for Dr. Bernard Zimmermann under the direction of Dr. O. H. Wangenstein .....	1953
6,497.00	To establish the North Star Scholarship Fund at the Duluth Branch, through the Greater University Fund .....	1952
	\$5,000.00 Elisabeth M. Congdon	
	1,200.00 Duluth Branch "M" Club	
	250.00 Dorothy M. Congdon	
	35.00 2 donors	
	12.00 Through the Greater University Fund	
5,000.00	From Franklin Transformer Company, through the Greater University Fund, for a scholarship in the Department of Athletics known as the Herman J. Lange Scholarship Fund .....	1953
3,000.00	From Lake Superior Mining Institute, through the Greater University Fund, to establish an undergraduate scholarship program for the School of Mines and Metallurgy .....	1953
2,867.17	From the Estate of Walter B. Cline to establish a memorial scholarship to encourage graduate study in languages and/or cultural history of Asia or the Moslem world .....	1953
2,255.00	To establish a scholarship in the School of Mines and Metallurgy through the Greater University Fund .....	1953
	\$1,155.00 Through the Greater University Fund	
	100.00 Zontelli Brothers, Incorporated	
	100.00 E. W. Coons Company	
	100.00 W. S. Moore Company	
	100.00 Skubic Brothers	
	100.00 Charleson Iron Mining Company	
	100.00 R. Maturi Corporation	
	100.00 Rhude and Fryberger	
	100.00 Pioneer Mining Company	
	100.00 Pacific Isle Mining Company	
	100.00 Haley Young Mining Company	
	100.00 Lerch Brothers, Incorporated	
2,000.00	From the Nash Foundation, Incorporated, through the Greater University Fund for a general scholarship fund which will provide financial assistance to undergraduate students in any college or department of the University .....	1952
1,000.00	For the establishment of the University Artists Course Music Scholarship Fund to assist academically-qualified and specially-talented youth to obtain advanced training in various fields of music, funds (up to \$2,500 annually) to be made available through the Department of Concerts and Lectures out of various departmental receipts earmarked for this purpose, through the Greater University Fund .....	1953
2,000.00	From E. R. Squibb and Sons for a scholarship in dentistry .....	1953
1,250.00	From Minnesota Surveyors and Engineers Society, through the Greater University Fund for an annual scholarship in highway engineering .....	1953
(annually)		
1,110.00	Through the Greater University Fund for aid to foreign students .....	1953
	\$1,000.00 Minneapolis Star and Tribune	
	100.00 Marietta Savage Circle	
	10.00 Greater University Fund	
1,000.00	From Reserve Mining Company to establish two annual taconite scholarships of \$500 each .....	1953
1,000.00	From Charles Pfizer and Company through the Greater University Fund for one or more scholarships in the Medical School .....	1953
900.00	From the University Theatre (annually) to establish a scholarship for outstanding students in theatre .....	1953

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Amount		Year Established
800.00	From Red Owl Food Stores, through the Greater University Fund, for a scholarship in practical nursing and home management	1952
750.00	From Ford Motor Company Fund (up to \$750 plus tuition and fees) for scholarship awards to two sons of Ford Motor Company employees who will attend the University	1952
675.00	From Salkin and Linoff, Incorporated, through the Greater University Fund for three scholarships for students in the School of Business Administration for the academic year 1953-54	1953
638.50	From residents of Comstock Hall and various other donors, through the Greater University Fund, for a scholarship in memory of Maria Starovich	1952
500.00	From Minneapolis Thrift Committee to establish two annual scholarships	1952
500.00	From Archer-Daniels-Midland Company, through the Greater University Fund, for a scholarship of \$500 for a senior student in organic chemistry or in chemical engineering	1952
500.00	From Junior Achievement of Minneapolis for awards of \$100 each to five students who will attend the University	1952
500.00	From National Society of the Colonial Dames of America in the State of Minnesota for one or more scholarships to assist foreign students attending the University	1953
500.00	From Construction and General Laborers' Union Local No. 563 to establish a scholarship	1953
350.00	From Square D Company to establish a scholarship	1953
325.00	From Van Dale Farm Machines, Incorporated, to establish a scholarship for a farm boy in the College of Agriculture, Forestry, Home Economics, and Veterinary Medicine	1952
300.00	From St. Paul Sales Executives Club, through the Greater University Fund, for a scholarship in the School of Business Administration	1953
300.00	From American Society of Tool Engineers for a scholarship for Merton L. Bartsch, student in mechanical engineering	1952
250.00	From United Steelworkers of America, Local 1028, through the Greater University Fund, to establish a scholarship at the Duluth Branch	1953
250.00	From Duluth Federated Trades and Labor Assembly, through the Greater University Fund, to establish a scholarship at the Duluth Branch	1953
200.00	From Minnesota Alumnae Club for a scholarship for a graduate student who will serve as head counselor at the Winchell Co-operative Cottages, through the Greater University Fund	1952
180.00	From William Edward and Bernardine C. Johnston, through the Greater University Fund, to establish a piano scholarship in honor of Professor William Lindsay	1953
150.00	From Minneapolis Women's Rotary Club (annually) for an annual scholarship to a Minneapolis senior high school girl graduate	1952
150.00	From Association of Friends of the Mentally Retarded, through the Greater University Fund, for a scholarship for students preparing to teach exceptional children	1953
100.00	From Minneapolis Reciprocity Committee of P.E.O. Sisterhood (annually) to establish an annual scholarship	1953
25.00	From Sigma Epsilon Sigma through the Greater University Fund, to establish a scholarship as a special recognition award for a freshman or sophomore woman student	1953
\$ 85,982.73		

**Scholarship Funds—Additions to Previous Gifts**

\$ 34,350.15	Henry L. Williams Memorial Scholarship through the Greater University Fund	1949
12,202.00	Minnesota Alumni Scholarship Fund	
\$12,000.00	From 1952 Greater University Fund campaign receipts	
200.00	Through the Greater University Fund	
2.00	Anonymous	
11,700.30	For the All-University Scholarship Fund	
\$1,300.00	Supreme Chapter P.E.O. Sisterhood	
1,250.00	Imperial Oil Limited (for R. A. Burwash)	
1,230.00	Harold Hoffman (personal funds)	
1,035.00	Chicago Community Trust (James M. Gaither)	
750.00	British Embassy, Washington, D.C.	
750.00	British Embassy (A. A. Nwokeuku)	
723.35	Bank Leumi Le-Israel (Yael Ginsburg—personal funds)	
500.00	Honolulu Japanese Junior Chamber of Commerce Nurses' Scholarship Fund	
500.00	Maud E. Warwick Fund for War Orphans, Incorporated	
500.00	British Embassy (S. F. Nwika)	
400.00	Croatian Fraternal Union of America (Aton Spraitz, Jr.)	
400.00	John C. Dahl (personal funds)	

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Amount		Year Established
390.00	Chicago Community Trust (J. M. Gaither)	
350.00	Quota Club of Minneapolis (Violet Dass)	
350.00	Nigeria Liaison Office (S. F. Nwika)	
266.69	First National Bank of Minneapolis (custody only for Wm. K. Agble)	
200.00	Bayport Foundation	
184.80	British Embassy (S. F. Nwika)	
140.00	Bemshire Akabi-Davies (personal funds)	
135.00	6 donors (Kishori Mohan)	
127.41	State of Maryland (Margaret L. Moye—custody only)	
100.00	H. Besubov (Moshe Besubov—custody only)	
75.00	Lutheran Student Association	
31.05	Near East Foundation (Abbas Ekrami)	
10.00	Richard I. Gaustad (Kishori Mohan)	
2.00	Greater University Fund	
10,100.00	Tozer Foundation Undergraduate Scholarship Fund, through the Greater University Fund	1947
7,000.00	From Sears-Roebuck Foundation	
	\$3,275.00 Agricultural Scholarship (college)	1947
	2,000.00 Scholarship Fund	
	1,125.00 Agricultural Scholarship (schools)	1937
	600.00 Agricultural Scholarship (College of Agriculture, Forestry, Home Economics, and Veterinary Medicine)	1950
5,114.44	Wilbur H. Cherry Memorial Scholarship Fund	1952
	150.10 Tom Kellet	
	\$4,964.34 Through the Greater University Fund	
4,000.00	Tozer Foundation, Incorporated, Graduate Scholarships	1949
3,021.00	From Mrs. Hulda B. Rothschild (\$30 and 66 shares of Inland Steel Company stock) for Maurice L Rothschild Scholarship Fund	1947
3,000.00	John Morse Memorial Foundation Scholarship, through the Greater University Fund	1950
3,000.00	F. H. Peavey-Van Dusen-Harrington Scholarship	1949
2,865.00	Milling Engineering Scholarship	1949
2,821.33	Minnesota Dental Foundation, Incorporated, Research Scholarship	1950
1,739.09	Social Service Council Scholarship Fund	1950
1,500.00	Mando Graduate Scholarship Fund	1946
1,500.00	Borden Home Economics Scholarship Award	1945
1,200.00	From Greater University Fund, 1952 campaign receipts for Senior Class Scholarship	
1,000.00	Minnesota State Federation of Labor Scholarship	1952
1,000.00	Flour City Architectural Education Fund (scholarship)	1945
1,000.00	Ossanna Transportation Foundation Scholarship	1952
800.00	RCA Scholarship Fund	1945
750.00	Socony-Vacuum Scholarship Fund	1949
750.00	Dr. E. S. Mariette Scholarship from Hennepin County TB Association	1950
750.00	Magnolia Petroleum Company Scholarship	1951
708.46	Marion L. Vannier Scholarship from Powell Hall Carnival	
650.00	Julia Marshall Scholarship Fund	1949
508.50	Harold Prehn Foundation Scholarship Fund	1951
500.00	Phi Upsilon Omicron Alumni Scholarship Fund from Alpha Alumni Chapter of Phi Upsilon Omicron	1949
500.00	Faculty Women's Club Scholarship	1952
500.00	Minneapolis Gas Company Service Scholarship	1948
500.00	Louis Allis Company Engineering Scholarship	1952
375.00	Northside Pharmacists Scholarship Fund	1950
350.00	Duluth Branch Scholarship Fund from Duluth Association of Small Loan Companies	1951
344.00	Katharine Densford Scholarship, through the Greater University Fund	1950
300.00	Progressive Club of Minneapolis Scholarship Fund	1951
300.00	F. H. Peavey and Company-Van Dusen Harrington Company Undergraduate Scholarship	1947
300.00	Advertising Club of Minneapolis Scholarship, through the Greater University Fund	1949
250.00	Presser Foundation Scholarship for 1952-53	1945
225.00	Alpha Zeta Traveling Scholarship	1949
212.80	Anna Von Helmholtz-Phelan Scholarship in Creative Writing	1949
	\$207.80 Delta Phi Lambda, through the Greater University Fund	
	5.00 Through the Greater University Fund	
202.00	Minnesota Alumni Scholarship	1950
	\$200.00 Through the Greater University Fund	
	2.00 Anonymous	
200.00	Minnesota High School Press Association Scholarship, through the Greater University Fund	
200.00	Sanford Hall Scholarship	1946
200.00	John Cowles Foundation Graduate Scholarship	1951
200.00	Faith Thompson Scholarship	1948
200.00	University of Minnesota Women's Club of Detroit Scholarship	1949
200.00	Mary Farrell Coffman Scholarship	1945

Amount		Year Established
185.59	William A. O'Brien Scholarship Fund \$165.88 From 3 donors 19.71 Through the Greater University Fund	
130.00	Women's Physical Education Alumni Association Scholarship from Physical Education Alumni Association, through the Greater Uni- versity Fund	1950
107.67	Nina Morais Cohen Scholarship Fund from Minneapolis Section, National Council of Jewish Women, through the Greater Univer- sity Fund	1926
103.00	Leora E. Cassidy Scholarship \$100.00 Comstock Hall Association, through the Greater Uni- versity Fund 3.00 Through the Greater University Fund	1944
100.00	Sigma Theta Tau, Zeta Chapter Scholarship	1950
100.00	Northwest Daily Press Association Scholarship	1935
100.00	Students Section of the Faculty Women's Club Scholarship	1951
100.00	Minnesota Press Women's Scholarship	1951
100.00	Phi Upsilon Omicron Scholarship	1926
100.00	Hoo Hoo Immortals Memorial Scholarship	1952
100.00	Minneapolis Women's Advertising Club Scholarship	1947
100.00	Anne Dudley Blitz Scholarship	1951
100.00	Douglas Scholarship Fund	1946
100.00	Burpee Award in Horticulture (scholarship)	1946
90.00	From St. Paul Alumnae Chapter of Sigma Alpha Iota for Sigma Alpha Iota Alumnae Group Scholarship Fund	1947
60.00	From 2 donors for German House Scholarships	1951
55.00	Robert V. Cram Memorial Scholarship	1948
50.00	Agricultural Faculty Women's Club Scholarship Fund	1923
50.00	Alpha Xi Delta Alumni Association Scholarship	1950
50.00	Alpha Zeta Scholarship	1922
50.00	Home Economics Association Scholarship	1924
50.00	Sigma Delta Tau Alumni-Serene Harris Abrahams Memorial Schol- arship	1951
35.00	Florence Munson Wilson Memorial Scholarship Fund from Dr. H. K. Wilson	1947
30.00	Virginia Sheffield Tyler Memorial Scholarship \$25.00 Twin City Pan Hellenic Association 5.00 Through the Greater University Fund	1950
15.00	Minnesota Indian Youth Scholarship, through the Greater Uni- versity Fund	1949
10.00	Lura C. Hutchinson Scholarship	1945
7.00	Class of 1916-Bernie Bierman Fund (scholarship), through the Greater University Fund	1948
5.00	David Grimes Scholarship Fund, through the Greater University Fund	1949
2.00	Anne Fenlason Memorial Scholarship	1950
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\$ 121,174.33		

### Fellowship Funds—New

\$ 30,000.00	From John and Mary R. Markle Foundation (\$6,000 a year for 5 years) to establish a fellowship in surgery for Dr. L. S. Peltier	1952
15,369.00	From Social Science Research Council for fellowship for Professor Lloyd Uiman	1953
14,350.00	From an anonymous donor for a fellowship in botany in memory of Caroline Crosby	1953
13,500.00	From Weirton Steel Company (\$4,500 for 3 years) for a fellowship in the School of Mines covering production of high quality sinter from certain raw materials	1953
8,000.00	From Helen Hay Whitney Foundation, \$6,000 for research in pedi- atrics and \$2,000 for Dr. Richard T. Smith	1952
4,800.00	From Swift and Company for a fellowship in physiological hygiene	1953
4,056.00	From St. Joseph's Hospital to establish a fellowship in obstetrics and gynecology	1952
3,500.00	From E. I. du Pont de Nemours and Company to establish a new teaching fellowship in chemistry	1953
2,700.00	From Quaker Oats Company for support of a research fellowship in milling engineering	1952
2,400.00	From Eastman Kodak Company to establish a fellowship in the Department of Chemistry	1953
2,000.00	From General Mills, Incorporated, to establish a fellowship in biochemistry	1952
2,000.00	From Hennepin County Tuberculosis Association (\$1,000 a year for 2 years) for a fellowship in graduate social work	1952
1,360.55	From Gulf Oil Corporation for a fellowship in geology	1952
1,200.00	From Sports Fishing Institute to establish a fellowship in the Graduate School	1953
540.00	From the USPHS to establish an enzyme research fellowship for Alfonso B. Falcone in the Division of Agricultural Biochemistry	1952
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\$ 105,775.55		

*Fellowship Funds—Additions to Previous Gifts*

Amount		Year Established
\$ 165,340.17	Minneapolis General Hospital Fellowships, 1952-53 and 1953-54 .....	1931
75,738.00	Ancker Hospital Fellowships .....	
6,650.00	From American Foundation for Pharmaceutical Education .....	
	\$6,400.00 Pharmaceutical Chemistry Fellowship .....	1947
	250.00 Pharmacognosy Fellowship .....	1947
6,528.00	From Sister Elizabeth Kenny Foundation .....	
	\$4,500.00 Fellowship in Physical Medicine .....	1949
	2,028.00 Fellowship in Pediatrics .....	1949
6,084.00	Affiliated Hospital Fellowships .....	
	\$4,056.00 St. Joseph's Hospital Fellowship in Surgery .....	1950
	2,028.00 Charles T. Miller Hospital Fellowship in Obstetrics and Gynecology .....	1946
4,554.10	From Allied Chemical and Dye Corporation .....	
	\$2,347.55 Fellowship in Chemistry .....	1941
	2,206.55 Fellowship in Chemical Engineering .....	1941
4,500.00	From 1952 GUF campaign receipts for Greater University Graduate Fellowships .....	
4,440.00	Eli Lilly Fellowship in Animal Breeding .....	1950
4,056.00	Mount Sinai Hospital Fellowship in Surgery .....	1951
4,210.55	From Shell Fellowship Committee .....	
	\$2,310.55 Fellowship in Geology .....	1947
	1,900.00 Fellowship in Chemistry .....	1947
4,056.00	St. Paul Children's Hospital Fellowship in Pediatrics and Research .....	1945
	\$2,556.00 Children's Hospital, Incorporated .....	
	1,500.00 Webb Publishing Company .....	
4,000.00	Minnesota Mining and Manufacturing Company Fellowship for 1953-54 .....	1946
3,300.00	United States Rubber Company Predoctoral Fellowship in Chem- istry .....	1947
3,300.00	Carbide and Carbon Chemicals Corporation Fellowship in Organic Chemistry .....	1946
3,300.00	Du Pont Postgraduate Fellowship in Chemical Engineering .....	
3,100.00	Procter and Gamble Company Fellowship in Chemical Engineering .....	1948
3,000.00	John Cowles Foundation Fellowships .....	1952
2,600.00	General Electric Company Fellowship in Chemistry .....	1952
2,500.00	Standard Oil Foundation Incorporated, Fellowship in Chemical Engineering .....	1946
2,418.50	Alpha Phi Cardiac Fellowship Fund .....	1947
2,250.00	Visking Corporation Fellowship .....	1951
2,000.00	Parke Davis and Company Fellowship in Chemistry .....	1952
2,000.00	Westinghouse Educational Foundation Fellowship .....	1946
2,000.00	Smith, Kline, and French Pre-Doctoral Fellowship .....	1952
1,800.00	Firestone Fund .....	1934
1,800.00	American Cyanamid Company Graduate Fellowship .....	1951
1,777.00	Norwegian-American Graduate Fellowship Fund from Norwegian Luncheon Club .....	1945
1,500.00	Kimberly-Clark Foundation Incorporated, Graduate Fellowship in Forestry .....	1950
1,500.00	Ethyl Corporation Graduate Fellowship (plus fees) .....	1952
1,500.00	Dow Chemical Company Fellowship in Chemistry .....	1952
1,420.55	California Company Fellowship Fund .....	1951
900.00	Grace Ellis Ford Fellowship of the Minneapolis College Women's Club .....	1941
500.00	American Cancer Society, Incorporated, Fellowship (physiology) .....	1949
500.00	Monsanto Chemical Company Graduate Fellowship in Organic Chemistry .....	1946
365.95	Miller Hospital Fellowship Fund from Dr. E. P. Burch .....	1941
25.00	Clara Ueland Fellowship, through the Greater University Fund .....	1928
25.00	John Torrance Tate Fellowship from Phyllis S. Freier .....	1950
\$ 335,538.82		

*Prizes—New*

\$ 25.00	From Minnesota State Veterinary Medical Association for Minne- sota State Veterinary Medical Society Award, to establish an award to be given annually to outstanding senior student in clini- cal veterinary medicine .....	1953
\$ 25.00		

*Prizes—Additions to Previous Gifts*

\$ 200.00	Magney, Tusler and Setter Prize .....	1948
200.00	A. C. Ochs Brick and Tile Company Prize .....	1951
175.00	John S. Pillsbury Prize .....	1888
105.00	Minneapolis District Dental Society Auxiliary Awards .....	
100.00	Southern Minnesota Medical Association Prize .....	1930
100.00	Frank H. Peavey Prize .....	1944
100.00	Chemistry Faculty Prize .....	1946
100.00	George B. Melcher Prize .....	1945

Amount		Year Established
60.00	Northern States Power Company Award .....	1944
50.00	American Society of Civil Engineers—Northwestern Section Prize .....	1924
50.00	Gargoyle Club Prize (books) .....	1931
50.00	Francis H. DeGroat Memorial Award .....	1950
25.00	American Veterinary Medical Association Award .....	1952
10.00	Alpha Chi Sigma Twin City Alumni Association Prize (books) .....	1929
5.00	Minnesota Bookstore Prize .....	
	American Institute of Architects Medal .....	
	Alpha Rho Chi Medal .....	
	Alpha Kappa Psi Junior Scholarship Medallion .....	1937
	Chi Epsilon Prize (handbook) .....	
	Delta Sigma Pi Scholarship Key .....	1929
	Eta Kappa Nu Award .....	1931
	Dean E. M. Freeman Medal for Student Leadership .....	1930
	Lehn and Fink Gold Medal .....	1923
	Phi Delta Junior Scholarship Award .....	1939
	Phi Lambda Upsilon Prize .....	1926
	Louise M. Powell Prize .....	1928
	Merck and Company Award (textbooks) .....	
	Sigma Alpha Iota Group Award .....	1947
	Sigma Delta Chi Scholarship Award (certificate) .....	1945
	Theta Sigma Phi Leadership Award .....	1945
	University Business Women's Club Scholarship Key .....	
	University of Minnesota Student Branch of the Institute of Aero- nautical Science Prize .....	
	Wulling Club Key .....	
	Minneapolis District Dental Society Auxiliary Awards .....	
	Pi Tau Sigma Prize .....	1913
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\$ 1,330.00		

### Research Funds—New

\$ 168,901.00	From the United States Public Health Service	
	\$27,463.00 For research on endogenous and exogenous cerebral toxins under the direction of Dr. Abe B. Baker (medicine) .....	1952
	17,139.00 For research of rapid isolation of microbiological pathogenic agents under the direction of Dr. Jerome T. Syverton (medicine) .....	1952
	16,930.00 For research on fluorescein dyes under the direc- tion of Dr. Lyle A. French (medicine) .....	1953
	15,755.00 For research on malnutrition under the direction of Dr. Maurice B. Visscher (medicine) .....	1952
	13,343.00 For research on chronic experimental heart failure under the direction of Dr. Ivan D. Baronofsky (medicine) .....	1953
	10,000.00 For research on the metabolic work requirements and cardiac output during rehabilitation activities under the direction of Dr. Frederic J. Kottke (medi- cine) .....	1952
	10,000.00 For research on energy metabolism of heart muscle under the direction of Dr. Victor Lorber (medicine) .....	1952
	9,238.00 For research on virus diseases affecting man and swine under the direction of Dr. George A. Young, Jr. (Hormel Institute) .....	1952
	8,775.00 For research on metabolism of nucleic acid and pro- tein under the direction of Dr. Cyrus P. Barnum, Jr. (medicine) .....	1952
	8,226.00 For research on periodontal disease under the direc- tion of Dr. Helmut Zander (dentistry) .....	1952
	7,500.00 For research on bacteria within plankton organisms under the direction of Dr. Theodore Olson (medi- cine) .....	1953
	7,026.00 For research on replacement of major arteries under the direction of Dr. Yoshio Sako (medicine) .....	1952
	6,370.00 For research in experimental intracardiac surgery under the direction of Dr. John F. Lewis (medicine) .....	1952
	5,808.00 For research on corticosteroids under the direction of Dr. Richard Frey (medicine) .....	1952
	4,328.00 For research on the effect of cortisone on endocar- ditis under the direction of Professor B. J. Clawson (medicine) .....	1952
60,000.00	From the Rockefeller Foundation for research in the Department of Plant Pathology and the Department of Agronomy and Plant Genetics on genic potentialities in wheat (agriculture) .....	1953
46,800.00	From Louis W. and Maud Hill Family Foundation for agricultural research .....	1953
45,000.00	From the National Science Foundation for research on atomic mass determination under the direction of Dr. Alfred O. C. Nier (physics) .....	1952

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Amount		Year Established
30,000.00	From the Ford Foundation for a systematic survey of the state of knowledge in the field of communication under the direction of Professor Leon Festinger (Graduate School)	1952
26,862.69	From Louis W. and Maud Hill Family Foundation for research (over a two-year period) on peripheral arteriosclerosis under the direction of Dr. Davitt A. Felder (medicine)	1952
20,000.00	From the National Dairy Council for research on cholesterol metabolism under the direction of Drs. Ancel Keys and Henry L. Taylor (medicine)	1952
18,200.00	From the National Science Foundation for research on enzymes under the direction of Professor Paul D. Boyer (agriculture)	1952
18,000.00	From Louis W. and Maud Hill Family Foundation (\$6,000 annually for three years) for studies in bovine functional infertility (agriculture)	1952
16,908.00	From Louis W. and Maud Hill Family Foundation for research (over a three-year period) on electronarcosis in surgery under the direction of Drs. R. C. Knutson and Ernst Gellhorn (medicine)	1953
16,500.00	From Minneapolis Grain Exchange for research on insect and rodent contamination of grain under the direction of the Division of Entomology and Economic Zoology (agriculture)	1952
16,200.00	From Louis W. and Maud Hill Family Foundation for research (over a period of two years) in case-work and psychotherapy under the direction of Professor John G. Darley (Graduate School)	1952
16,200.00	From the Life Insurance Medical Research Fund for research on acquired heart disease under the direction of Dr. Ivan D. Baronofsky (medicine)	1953
16,000.00	From Louis W. and Maud Hill Family Foundation for research in swine under the direction of the Division of Animal Husbandry (agriculture)	1952
15,869.68	From the Estate of Marian W. Barrows for research in cancer (medicine)	1952
12,500.00	From Damon Runyon Memorial Fund for Cancer Research for studies concerning relationship of hormones to development and therapy of cancer (medicine)	1953
12,000.00	From Louis W. and Maud Hill Family Foundation (\$4,000 a year for three years) for research on bovine vibriosis (agriculture)	1952
9,700.00	From the National Science Foundation for phytogeographical studies under the direction of Professor Ernst C. Abbe (botany)	1952
8,500.00	From the United States Public Health Service for research on post-gastrectomy anemia under the direction of Dr. William D. Kelly (medicine)	1953
8,500.00	From the American Heart Association for cardiovascular research under the direction of Dr. Victor Lorber (medicine)	1953
8,000.00	From the National Science Foundation (\$4,000 a year for two years) for research on motions of the stars under the direction of Professor Willem J. Luyten (astronomy)	1952
7,500.00	From the Charles Pfizer Company for research on staphylococci under the direction of Dr. Wesley Spink (medicine)	1952
6,625.00	From Geschickter Fund for Medical Research, Incorporated for research on hypnotic techniques in educational research under the direction of Alden B. Sears (psychology)	1953
6,444.24	From the International Press Institute for a research and survey project in the School of Journalism	1952
5,500.00	From the Ford Foundation for research on behavior under the direction of Professor Leon Festinger (psychology)	1952
5,250.00	From the American Heart Association for studies in intermediary metabolism under the direction of Dr. R. W. Von Korff (medicine)	1953
5,000.00	From Pioneer Hi-Bred Corn Company for research on the improvement of corn (agriculture)	1952
5,000.00	From the National Science Foundation for natural convection research under the direction of Professor Herbert S. Isbin (technology)	1953
5,000.00	From Minneapolis Grain Exchange for research on insect and rodent contamination of grain under the direction of the Agricultural Experiment Station	1953
5,000.00	From Watson P. Davidson, through the Minnesota Medical Foundation, to establish a fund for research in cancer (medicine)	1953
4,000.00	From American Cancer Society, Incorporated for metabolic studies of carcinogenic amines under the direction of Professor Helmut R. Gutmann (medicine)	1953
3,510.00	From Minnesota Mining and Manufacturing Company for research on offset printing compound under the direction of Professors Elizabeth M. Cranston and Raymond N. Bieter (medicine)	1952
3,500.00	From E. R. Squibb & Sons for studies of infectious diseases under the direction of Dr. Wesley W. Spink (medicine)	1953
3,342.17	From Independent Order of Odd Fellows of the Twin Cities for heart research (medicine)	1953
3,240.00	From Louis W. and Maud Hill Family Foundation for research on parent-child relationship under the direction of Professor John C. Kidneigh (social work)	1953

## THE PRESIDENT'S REPORT

Amount		Year Established
2,860.00	From Louis W. and Maud Hill Family Foundation for a study of social work vocational interest patterns under the direction of Professor John C. Kidneigh (social work).....	1953
2,650.00	Through the Greater University Fund, for research to be undertaken by the Department of Dairy Husbandry (agriculture).....	1953
	\$2,400.00 Armour and Company	
	250.00 W. E. Peterson	
2,500.00	From Armour and Company for research in fats and oils under the direction of Professor Walter O. Lundberg (Hormel Institute).....	1953
2,300.00	To establish the Poliomyelitis Research Fund (medicine).....	1953
	\$1,400.00 Montevideo Community Chest	
	900.00 Chippewa County Community Chest	
2,000.00	From Lloyd Brothers, Incorporated for research under the direction of Dr. Roy G. Holly (medicine).....	1953
2,000.00	From General Mills, Incorporated for research on carbohydrates in wheat under the direction of Professor Fred Smith (agriculture).....	1952
1,700.00	From the St. Paul Dispatch and Pioneer Press for research on classified advertising (journalism).....	1953
1,500.00	From Panogen, Incorporated for research in control of seed-and-soil-borne diseases of small grain crops (agriculture).....	1953
1,500.00	From Winthrop-Stearns, Incorporated for research on brucellosis under the direction of Dr. Wesley W. Spink (medicine).....	1952
1,500.00	From Archer-Daniels-Midland Company for research on drying oils under the direction of Dr. Walter O. Lundberg (Hormel Institute).....	1952
1,500.00	From Rohm & Haas Company for research in chemistry under the direction of Professor Stuart W. Fenton (technology).....	1952
1,000.00	From Armour Laboratories for research in fundamentals of milk secretion (agriculture).....	1953
750.00	From Spencer Chemical Company for research on value of nitrogen as side-dressing for corn (agriculture).....	1953
521.00	From Lee Mark Foundation for research in infertility under the direction of the Department of Obstetrics and Gynecology (medicine).....	1953
500.00	From Wisconsin Alumni Research Foundation for research on white-mold powder under the direction of Professor Walter B. Combs (agriculture).....	1953
500.00	From Calumet and Hecla, Incorporated to establish research on potato diseases (agriculture).....	1953
500.00	From Archer-Daniels-Midland Company for research on the digestibility and utilization of a flax by-product feed (agriculture).....	1952
428.00	From Lakeland Foundation for research on wild rice by Alfred Rogosin (botany).....	1953
300.00	From Smith, Kline & French Laboratories for aid to Professor William E. Parham in support of his research activities (technology).....	1953
215.00	From seven donors to establish the Special Research Fund—Medicine.....	1953
160.00	From Sigma Delta Tau Foundation for research in blood disease (medicine).....	1953
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\$ 686,436.78		

## Research Funds—Additions to Previous Gifts

\$ 487,440.00	From the United States Public Health Service	
	\$30,660.00 For polarographic studies of cancer (medicine).....	1948
	30,000.00 For research on diet, activity, and hypertension (medicine).....	1947
	27,047.00 For research on pathogenesis of rheumatic fever (medicine).....	1950
	25,000.00 For cancer teaching and clinical cancer research (medicine).....	1948
	22,226.00 For mammary cancer in mice research (medicine).....	1947
	21,616.00 For research on ultrasonic pulses (technology).....	1950
	20,000.00 For studies of rheumatic fever complex (medicine).....	1949
	19,296.00 For research on experimental endocarditis (medicine).....	1950
	16,160.00 For research on interactions of proteins (medicine).....	1947
	16,005.00 For research on cortisone (medicine).....	1951
	15,903.00 For research on the mechanism of allergic encephalomyelitis (medicine).....	1951
	15,618.00 For research in the etiology of acid-peptic ulcer (medicine).....	1947
	15,000.00 For research on ageing in relation to diet (medicine).....	1947
	15,000.00 To National Advisory Cancer Institute—Cancer Research Fund (medicine).....	1946
	14,493.00 For research on metabolism and composition of the skeleton (medicine).....	1947
	10,495.00 For research on cancer of steroidal conjugation mechanism (medicine).....	1950
	9,996.00 For research on dioxide concentration (medicine).....	1951

Amount		Year Established
9,695.00	For research on conjugation of steroids in the body (medicine)	1948
9,532.00	For research on vitamins and amino acids (medicine)	1950
9,180.00	For research on heat and cold on central nervous system (medicine)	1951
9,093.00	For research on drugs (medicine)	1949
9,000.00	For studies on the C-reactive proteins (medicine)	1951
8,721.00	For research on the central nervous system (medicine)	1951
8,500.00	For research on parametric electrocardiograms (physics)	1949
8,000.00	For studies on the inhibition of hyaluronidase (medicine)	1947
8,000.00	For interauricular research (medicine)	1950
7,693.00	For research on aureomycin (medicine)	1951
7,500.00	For research on mammalian skeletal muscle (medicine)	1952
6,026.00	For vital staining research (medicine)	1950
6,000.00	For analysis of adrenal cells measured by x-ray (medicine)	1950
5,994.00	For research on bone growth after poliomyelitis (medicine)	1951
5,448.00	For research on dental caries (dentistry)	1951
5,374.00	For research on endocrine glands of the fetus (medicine)	1950
4,838.00	For research on the reactions of the hepatic parenchyma in injury and repair (medicine)	1948
4,800.00	For investigations of renal function in dairy cattle (agriculture)	1951
4,364.00	For research on the biology of human breast cancer (medicine)	1948
4,320.00	For research on experimental diabetes mellitus (medicine)	1950
3,980.00	For research on gastric carcinogenesis (medicine)	1950
3,974.00	For research on nutritional requirements of the early embryo (medicine)	1950
3,600.00	For studies on nitrification of soils (medicine)	1951
3,296.00	For research on arteriosclerosis in diabetes (medicine)	1949
3,097.00	For research on bacteria in unsaturated fatty acids (agriculture)	1950
2,900.00	For research on inorganic ions (medicine)	1951
194,304.00	From the National Foundation for Infantile Paralysis	
\$148,637.00	For research on host-cell virus relationship (medicine)	1949
38,996.00	For medulla study (medicine)	1949
5,671.00	For research in public health (medicine)	1946
1,000.00	For research in the Department of Medicine	1951
133,963.00	From the American Cancer Society, Incorporated	
\$62,500.00	For cancer research (medicine)	1949
15,000.00	For research on physiological determinants of carcinogenesis (medicine)	1951
12,400.00	For research on re-operative lymphnode	1951
10,000.00	For research on mammary tumor milk agent (medicine)	1946
8,700.00	For the Special Research Fund (medicine)	1951
6,925.00	For research on genetics of human breast cancer (zoology)	1948
6,000.00	For research on mammary tumor milk agent (medicine)	1946
5,000.00	For research on mammary cancer in mice (medicine)	1946
4,800.00	For rabbit cancer research (medicine)	1946
2,638.00	For tumor research (medicine)	1946
93,179.30	For the Malignant Disease Research Fund (medicine)	1946
\$36,500.49	Bequest in the Will of Henrietta Zauz	
25,000.00	Louis W. and Maud Hill Family Foundation	
18,721.61	Minnesota Medical Foundation	
2,400.00	Lewis and Annie F. Paper Foundation, through the Minnesota Medical Foundation	
1,280.00	Dr. Richard L. Varco, through the Minnesota Medical Foundation	
1,230.00	Dr. Lyle French, through the Minnesota Medical Foundation	
1,089.50	From 53 donors	
1,000.00	George B. Leonard, through the Minnesota Medical Foundation	
1,000.00	Dr. Carl W. Waldron	
1,000.00	Montevideo Community Chest	
615.00	Dr. Lyle A. French	
900.00	Chippewa County Community Chest	

## THE PRESIDENT'S REPORT

Amount		Year Established
	500.00 J. Kay	
	500.00 Harry J. Reicher	
	500.00 Lax Electric Company, Incorporated	
	300.00 Frank A. Nelson (Tillie V. Nelson Fund for Surgical Research in Cancer)	
	243.70 American Cancer Society	
	116.00 Florence M. Trippe	
	100.00 William Elson, through the Minnesota Medical Foundation	
	183.00 Through the Greater University Fund	
70,000.00	Minnesota Heart Association—Cardiovascular Research (medicine)	1950
37,250.00	Neurology Research Fund (medicine)	1952
	\$35,000.00 (\$12,000.00 a year for three years) Teagle Foundation	
	500.00 Alex G. Tankenoff Foundation	
	500.00 F. T. Hefelfinger	
	250.00 Lewis and Annie F. Paper Foundation, Incorporated	
15,000.00	E. I. du Pont de Nemours & Company Research in Chemistry (technology)	
9,489.00	Geo. A. Hormel & Company Animal Research Fund (Hormel Institute)	1951
9,200.00	American Dairy Association Fund for Research (agriculture)	1948
8,964.00	Star and Tribune Newspaper Studies Fund (journalism)	1944
8,250.00	From 1952 Greater University Fund campaign receipts for the Greater University Graduate Research Fund, allocated as follows:	
	\$1,300.00 Twenty-point strain gauge, switching and balancing unit and recorder	
	1,000.00 Petrographic microscope and attachments	
	900.00 Petrographic microscope	
	900.00 Micro-analytic balance	
	875.00 Musical instrument in Renaissance art study (Duluth Branch)	
	775.00 Friden automatic calculator	
	750.00 Bailey aortic dilator	
	700.00 Aerial photographic coverage of portions of the Twin Cities metropolitan area	
	650.00 Children's Aid Scholarship	
	400.00 Two altimeters	
8,000.00	Committee for Economic Development—Business Executive Research (School of Business Administration)	1951
7,500.00	Lederle Fluid Research Fund (medicine)	1951
7,500.00	H. Longstreet Taylor Tuberculosis Research Fund, through the Greater University Fund (medicine)	1951
7,500.00	Lederle Laboratories Division, American Cyanamid Company—Research on Virus Diseases in Swine (agriculture)	1949
6,700.00	Minnesota Turkey Growers Association Research in Salmonella Infections in Turkeys (agriculture)	1951
6,660.00	Minnesota Turkey Growers Association Research on Bluecomb Disease in Turkeys (agriculture)	1951
6,500.00	E. I. du Pont de Nemours & Company Cellulose Research (agriculture)	1952
6,400.00	Helen Hay Whitney Foundation Research in the Field of Rheumatic Fever (medicine)	1948
6,330.00	Urological Research—Malignant Disease Research Fund from Minnesota Medical Foundation (medicine)	1952
6,000.00	Quaker Oats Company Research on Improvement in Oats (agriculture)	1947
5,658.95	Heart Disease Research Fund	1948
	From Mrs. Helen H. Bristol:	
	\$3,250.00 (50 shares of Common Stock, Pure Oil Company)	
	1,742.00 (46 shares of Common Stock, Socony-Vacuum Oil Company)	
	414.95 From 43 donors	
	150.00 Women's Auxiliary, Hennepin County Medical Society	
	100.00 Minnesota Medical Foundation	
	2.00 Through the Greater University Fund	
5,500.00	Middle West Soil Improvement Committee—Alfalfa Research (agriculture)	1949
5,240.00	Williams-Waterman Nutrition Fund (agriculture)	1950
5,000.00	Dwan Fund for Cardiovascular Research from Mrs. Leland Schubert, through the Minnesota Medical Foundation	
4,500.00	Lederle Laboratories Research in Animal Diseases (agriculture)	1944
4,500.00	Lederle Laboratories Research on Brucellosis (medicine)	1948
4,500.00	National Oak Wilt Research Committee Research (agriculture)	1951
4,300.00	American Dry Milk Institute Research (agriculture)	
4,000.00	Lederle Laboratories Division, American Cyanamid Company, Research on Aureomycin (agriculture)	1952
3,960.00	Hill Foundation Research in Speech Pathology (speech)	1951
3,815.47	Media and Attitude Studies (journalism)	1952
	\$2,000.00 Minneapolis Star and Tribune Committee	
	1,700.00 St. Paul Dispatch-Pioneer Press	
	115.47 Minnesota Editorial Association	

Amount		Year Established
3,600.00	Dr. Salsbury's Laboratories Research (Hormel Institute).....	1948
3,000.00	Corn Industries Research Foundation Studies on Starch (agricul- ture) .....	1950
3,000.00	National Dairy Council Research on Metabolism and Deposition of Fatty Acids (Hormel Institute—agriculture) .....	1951
3,000.00	Eli Lilly & Company Research on Antibiotics (medicine) .....	1952
3,000.00	Soils Research Fund, through the Greater University Fund (agri- culture) .....	1952
3,000.00	Williams-Waterman Fund—Research on Reducing Diets (medicine) .....	1952
2,800.00	Western Condensing Company—Poultry Nutrition Research (agri- culture) .....	1951
2,600.00	Cargill, Incorporated Research on the Relation of Molds to Sick Wheat (agriculture) .....	1952
2,474.00	Louis W. and Maud Hill Family Foundation Research on Cerebral Palsy (medicine) .....	1950
2,400.00	L. D. Caulk Company—Dental Research on Tissue Reaction (den- tistry) .....	1952
2,400.00	Land O'Lakes Creameries, Incorporated Artificial Insemination Re- search (agriculture) .....	1950
2,400.00	American Society of Heating and Ventilating Engineers Research on Panel Heating (technology) .....	1950
2,300.00	Research Corporation—Williams-Waterman Fund Research on Amino Acids .....	
2,250.00	Henry K. Beecher Fund Study Relating to Anesthesia Deaths .....	
2,050.00	B. F. Nelson Research Fund (medicine) .....	1947
	\$2,000.00 Minnesota Medical Foundation .....	
	50.00 Mrs. Frances Berger .....	
2,025.88	Midwest Barley Improvement Fund (agriculture) .....	1947
2,000.00	Augustus L. Searle Fund for Surgical Research (medicine) .....	1945
2,000.00	Treasure Cave Blue Cheese Research Fund from Felix H. Fred- erikson (agriculture) .....	1950
2,000.00	Flora Rosenblatt Fund for Cancer Research (medicine) .....	1944
2,000.00	Spencer Chemical Company Fund (agriculture) .....	1950
2,000.00	Sulphite Pulp Manufacturers Research League, Incorporated Re- search on Torula Yeast (agriculture) .....	1950
2,000.00	Abbott Laboratories Research on Arsanilic Acid (agriculture) .....	1952
2,000.00	Northwest Feed Manufacturers Research Fund (agriculture) .....	1949
2,000.00	Milk Distributors' Research Fund (agriculture) .....	1936
1,050.00	G. Nelson Dayton Fund for Cancer Research—Malignant Disease Fund (medicine) .....	1951
	\$1,000.00 Minnesota Medical Foundation .....	
	50.00 Donald G. Dayton .....	
1,500.00	American Academy of Allergy Research Fund (agriculture) .....	1948
1,007.00	Research on Brain Metabolism (medicine) .....	1941
	\$552.00 From 6 donors .....	
	305.00 Mr. and Mrs. Roger Holt .....	
	150.00 Mrs. James E. Bacon .....	
1,000.00	John H. Briggs Porphyrin Research Fund (medicine) .....	1950
1,000.00	Hawaiian Sugar Planters' Association Research (physics) .....	1948
1,000.00	International Baby Chick Association Variant Pullorum Fund from the American Poultry and Hatchery Federation (agriculture) .....	1949
1,000.00	Lederle Laboratories—Antibiotic Feeding Research Fund (agricul- ture) .....	1951
1,000.00	Erie Mining Company Research (agriculture) .....	1948
1,000.00	Austen S. Cargill Fund for Surgical Research, through the Minne- sota Medical Foundation (medicine) .....	1948
701.00	Brucellosis Research and Travel Fund .....	1946
	\$500.00 Community Chest of South St. Paul .....	
	200.00 Arthur C. Melamed .....	
	1.00 Mrs. M. V. Rickey .....	
650.00	Louis W. and Maud Hill Family Foundation Research on State Income Tax Administration (School of Business Administration) .....	1952
610.00	Neurosurgery Research Fund from Dr. William T. Peyton (medi- cine) .....	1947
500.00	Tennessee Corporation Fungicide Fund (agriculture) .....	1944
500.00	Experimental Medical Research Fund from the Dietene Company (medicine) .....	1942
500.00	Frank E. Burch Research Fund in Ophthalmology from the Morse Foundation (medicine) .....	1943
500.00	General Mills Radio and Television Studies (journalism) .....	1950
384.00	Chas. A. Mann Research Fund in Chemical Engineering, through the Greater University Fund (technology) .....	1951
250.00	Robert A. Cooper Fund for Surgical Research (medicine) .....	1945
200.00	Rose R. Peck Fund—Research in Blood Disease from Sigma Delta Tau Mothers Club (medicine) .....	1951
100.00	Advertising-Marketing Research, Duluth Branch, from B. H. Ridder, Jr. (Duluth Branch) .....	1951
25.00	From Dr. Nelson A. Murray for the National Foundation for In- fantile Paralysis-Respiration Research Fund (medicine) .....	1950
22.00	Grassland Research Fund, through the Greater University Fund (agriculture) .....	1951

Amount		Year Established
12.00	Physical Medicine Research Fund (medicine) .....	1950
	\$10.00 Martha E. Siren	
	2.00 Through the Greater University Fund	
Equipment and Fuel	From Northwest Hyrogas Company for the Flame Cultivation Fund (agriculture) .....	1947
<b>\$1,259,914.60</b>		

### Miscellaneous Funds—New

\$ 118,800.00	From Louis W. and Maud Hill Family Foundation (\$39,600 a year for three years) to establish a Center for the Philosophy of Science	1953
37,500.00	From the United States Public Health Service for traineeships in rehabilitation under the direction of Dr. Abe B. Baker	1953
23,400.00	For the production of a series of television programs entitled, "A Great Symphony Orchestra and the Region It Serves," under the direction of Burton Paulu, manager of KUOM, from the National Association of Educational Broadcasters	1952
15,000 to 20,000.00	From Harza Engineering Company for the preparation of models, studies, and collection of data on dam construction	1952
15,845.00	From Edward W. Davis (\$3,000.00 in cash; seven stocks at \$12,845.00) to establish the Wallace H. Cole Fund for support of a traveling fellowship, purchase of special equipment, support of research, or for other needs of the Division of Orthopedic Surgery	1952
12,000.00	From the Fund for the Advancement of Education for a summer institute for secondary school teachers in the teaching of physics	1953
9,500.00	From the National Science Foundation for a summer institute for college teachers of physics	1953
5,555.00	For the support of an expedition of the Back River region of Canada by Professor Walter J. Breckenridge of the Museum of Natural History	
	\$5,000.00 Wilkie Foundation	1953
	555.00 Wildlife Management Institute	1953
5,000.00	From the Grant Foundation to establish a training program in juvenile delinquency under the direction of Dean Maynard E. Pirsig, Law School	1953
4,400.00	From the James F. Bell Trust for salary of the curator of the Bell Collection	1953
3,200.00	From Citizenship Clearing House, New York University, to establish a Citizenship Clearing House at the University of Minnesota	1953
3,000.00	From the James F. Bell Book Trust to set up a revolving fund for the purchase of rare books	1952
2,500.00	From Lampert Yards to establish the Lampert Yards Educational Survey Fund to supplement funds available for expenses of President Morrill on his trip to attend the Quinquennial Conference of the Universities of the British Commonwealth	1953
2,000.00	From the American Psychological Association to reimburse the University for services of Professor Kenneth E. Clark (psychology) for the National Science Foundation project	1953
2,000.00	From the Minneapolis Hospital Association to establish an opinion survey of attitudes toward hospital services by the School of Journalism	1953
2,000.00	For the purchase of contemporary sculpture to be known as the John Rood Collection	1952
	\$1,000.00 Mr. and Mrs. John Rood (annually), through the Greater University Fund	
	1,000.00 Atkinson Foundation, Incorporated	
1,775.00	From Mrs. George P. Tweed (two 5-share certificates of Colorado Fuel and Iron Corporation) for the Duluth Branch Art Department	1953
1,600.00	From the Educational Testing Service for the General College Budget-Special Research Fund to cover the right to use the General College comprehensive exams	1953
1,450.00	From 31 donors to establish the Owen H. Wangenstein Surgical Education Fund	1953
1,261.20	From the Junior League of Minneapolis to assist in staffing the Social Service Department of the Variety Club Heart Hospital	1953
1,000.00	From Physicians and Hospital Supply Company for instruction and aid to students in administrative residency in the program of hospital administration	1953
950.00	From friends of Marshall Hervey, through the Greater University Fund, for a memorial bookshelf in memory of Professor Hervey	1953
500.00	From George B. Leonard for expenses in connection with the lecture by Felix Frankfurter	1952
347.16	From the Class of 1952, West Central School of Agriculture, Morris, for part payment on an opaque projector	1952
275.00	To apply on the cost of a scoreboard for the West Central School of Agriculture, Morris	1953
	\$100.00 Class of 1952	
	100.00 Class of 1953	
	75.00 Superintendents A. W. Edson of Morris and A. C. Heine, Rosemount	

Amount		Year Established
250.00	From the Minnesota Implement Dealers' Association for a farm safety booth at the 1952 Minnesota State Fair .....	1952
250.00	From Northrup King and Company, through the Greater University Fund, for support of the University of Minnesota Vegetable Judging Teams in various competitions .....	1952
235.61	For the support of Minnesota Flower Judging Teams .....	1953
	\$175.00 Minnesota Florists' Public Relations Committee, through the Greater University Fund .....	
	60.61 Through the Greater University Fund .....	
160.17	From Regent R. L. Griggs to the Regents' Budget for reimbursement of expenses incurred at Regents' meeting on July 11, 1952 at Virginia and Duluth, Minnesota .....	1952
150.00	From Northwest Feed Manufacturers to assist in the publication of papers presented at the 1952 Animal Nutrition Short Course .....	1952
30.00	From two donors to establish the John Ira Parcel Volume Fund .....	1953
	Expense of postage, mimeographing, etc. from <i>The Farmer</i> for maximum-yield corn contests .....	1953
	For the establishment of the School of Social Work Gertrude Vaile Library Fund to which contributions for the provision of books and periodicals in the field of social work for use by students in the School may be credited .....	1952
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\$ 276,974.14		

Miscellaneous Funds—Additions to Previous Gifts

\$ 184,688.00	From the United States Public Health Service	
	\$46,837.00 For advanced mental hygiene program .....	1947
	35,999.00 For training of psychiatric nurses .....	1947
	28,028.00 For training of psychiatric social workers .....	1947
	15,984.00 For individual security study .....	1951
	15,000.00 For undergraduate training in psychiatry .....	1949
	12,646.00 For training in advanced psychiatric social work .....	1949
	12,444.00 For training in neurology .....	1950
	6,750.00 For psychiatric training .....	1947
	6,000.00 For training in clinical psychology .....	1947
	5,000.00 For undergraduate training in dentistry .....	1948
35,000.00	American Legion Memorial Heart Professorship Fund .....	1948
25,000.00	Variety Club Heart Hospital Administration .....	1951
25,000.00	School of Nursing—Special Funds .....	1951
	\$5,000.00 Minneapolis Foundation	
	5,000.00 Minnesota Division, American Cancer Society	
	4,620.00 Minnesota Farm Bureau Federation	
	2,500.00 F. H. Peavey & Company	
	2,500.00 Tozer Foundation, Incorporated	
	1,000.00 Bayport Foundation	
	1,000.00 <i>Minneapolis Star and Tribune</i>	
	1,000.00 Minnesota Tuberculosis and Health Association	
	280.00 E. E. Crabb	
	100.00 John S. Pillsbury	
20,000.00	Minnesota Division, American Cancer Society, Incorporated Cancer Biology Staff Development Fund .....	1951
19,363.34	For the 4-H Club Fund .....	1931
	\$2,000.00 National 4-H Club Foundation of America	
	1,967.00 North Central Electrical Industries	
	1,800.00 Standard Oil Company (Indiana)	
	1,748.50 National Committee on Boys and Girls Club Work	
	1,300.00 Keep Minnesota Green Committee	
	1,300.00 Minnesota Cannery Association	
	1,000.00 Federal Cartridge Corporation	
	1,000.00 Great Northern Railway	
	870.00 United States Rubber Company	
	660.00 Northern Pacific Railway Company	
	600.00 4-H Leaders Council, Kandiyohi County	
	600.00 Land O'Lakes Creameries, Incorporated	
	500.00 Soo Line Railroad	
	500.00 Minnesota Bankers Association	
	450.00 Farm Underwriters Association	
	421.50 Minnesota Rural Youth Federation	
	325.00 Chicago and Northwestern Railway	
	275.00 Chicago, Milwaukee, St. Paul and Pacific Railroad Company	
	215.00 Chicago, Rock Island and Pacific Railroad Company	
	200.00 J. R. Watkins Company	
	200.00 King Midas Flour Mills	
	200.00 Lincoln County	
	168.75 Mutual Service Casualty Insurance Company	
	155.50 Cudahy Packing Company	
	131.25 Republic Steel Corporation	
	80.37 Southern Minnesota Broadcasting Company	

## THE PRESIDENT'S REPORT

Amount		Year Established
75.00	Webb Publishing Company	
75.00	Midwest Radio-TV Incorporated	
70.00	George A. Hormel Company	
70.00	General Mills, Incorporated	
70.00	Dairy Supply Company	
70.00	Russell-Miller Milling Company	
67.00	Wilson and Company	
51.97	Anoka County 4-H Leaders' Council	
50.00	Steele County Junior Council	
50.00	Steele County Farm Bureau	
11.50	Central Livestock Association	
10.00	Meeker County Rural Youth Group	
10.00	Central Livestock Association, Incorporated	
10.00	Hopkins Future Homemakers Club	
5.00	Huslin Rustics 4-H Club of Todd County	
15,780.00	National Fund for Medical Education	1951
\$15,505.00	National Fund for Medical Education	
100.00	Dr. Earl R. Lowe	
100.00	Dr. E. J. Tanquist	
50.00	Dr. Eliot Sorsky	
25.00	Dr. Nelson A. Murray	
11,404.10	Heart Hospital Equipment Fund	1948
\$5,930.00	Variety Club of the Northwest	
4,636.10	From 262 donors	
540.00	American Legion Auxiliary Department of Minnesota	
183.00	Through the Greater University Fund	
115.00	W. B. Farr	
9,043.27	SPAN (Student Project for Amity Among Nations)	1950
\$4,920.00	Minnesota Span Association	
1,860.51	From various donors	
1,500.00	Span Associates, Minnesota	
450.00	Social Service Council	
129.69	Social Service Council, through the Greater University Fund	
120.00	University of Minnesota Span Association	
44.07	Students Activities Bureau, through the Greater University Fund	
10.00	Albert J. Schroeder	
7.00	Through the Greater University Fund	
2.00	Mrs. E. Lilja	
6,500.00	William A. O'Brien Professorship in Cancer Research from the American Cancer Society	1948
5,000.00	Rock Analysis Laboratory from Professor George A. Thiel, subvention of the Geological Society of America	
3,595.00	Elizabeth Kenny Institute—Attending Pediatrician Fund	1949
3,000.00	Marsden Hartley Art Catalog Fund	1950
\$1,500.00	Mr. and Mrs. Hudson Walker	
1,500.00	Mr. and Mrs. Milton Lowenthal	
2,591.72	Department of Surgery Traveling Fund—Malignant Disease Research Fund, through the Minnesota Medical Foundation	1949
2,447.52	M & R Laboratories, Incorporated—Symposium on Potassium Metabolism	1952
2,311.83	Minnesota Medical Foundation—Elexious T. Bell Fund	1949
\$1,311.83	Through the Greater University Fund	
1,000.00	Salkin & Linoff, Incorporated	
2,050.00	Southwest Minnesota Farm Management Association—Agricultural Extension Fund	1950
2,000.00	Minnesota Medical Foundation—Pediatrics Travel Fund	
2,000.00	World Health Organization—Brucellosis Research Center	1952
1,862.50	Booth Memorial Hospital Fund from 35 donors	1940
1,726.01	Dental Service Fund, through the Greater University Fund	1952
1,700.00	Minnesota Museum of Natural History—Special Collections Fund from Mrs. J. G. Cohen in honor of David J. Cohen	
1,300.00	From 13 donors for the Cancer Detection Clinic Fund	1947
1,300.00	Minnesota Jewish Council 4-H Club Fund	1945
1,261.20	Junior League of Minneapolis Medical Social Worker Fund	1947
1,050.00	Hennepin County Tuberculosis Association—Occupational Therapy Rehabilitation Program	1952
854.76	State of Minnesota, Commissioner of Mental Health—Workshop in Public Health	1950
711.50	University Theatre Building Fund	1940
633.50	Minnesota Dairy Technology Society Fund, through the Greater University Fund	1950
443.50	Wesley E. Peik Teacher Education Fund	1952
308.07	Conference on Savings and Inflation, from Investors Diversified Services, Incorporated	1951
300.00	Farm Campus Union Building Fund from Phi Upsilon Omicron	1949
265.03	For the Hospital Budget	
\$150.00	The Foster Club	
44.03	From Hiwayan Club for elementary school classroom equipment	

Amount		Year Established
41.00	From Faculty Women's Club for purchase of books for ceiling projector	
25.00	From Minnesota State Sunshine Jewell-Shaw Circle for occupational therapy supplies for children	
5.00	From Faculty Women's Club	
200.00	Judd Lectureship in Medicine and Surgery	1933
182.50	J. C. Litzenburg Memorial Room Fund	1950
	\$110.00 Through the Greater University Fund	
	72.50 From 6 anonymous donors	
160.13	From the Estate of the late Fred Johnson to the Crippled Child Relief, Incorporated Rehabilitation Center Fund	
128.00	Friends of the University of Minnesota Library Fund, through the Greater University Fund	1944
124.64	School of Agriculture, St. Paul Campus Loyalty Fund, through the Greater University Fund	1952
105.00	Mayo Memorial Equipment Fund	
	\$100.00 Dr. Lillian Nye	
	5.00 Hamar Church, Rothsay, Minnesota	
100.00	Luthard N. Bergh Memorial Fund, from Dr. Solveig M. Bergh	1948
100.00	Greater University Fred B. Snyder Fund, through the Greater University Fund	1947
65.00	Frank K. Walter Lecture Fund, through the Greater University Fund	1950
58.00	St. Paul Campus Union Fund, through the Greater University Fund	1949
50.00	Veterinary Medicine Service Fund, through the Greater University Fund	1951
50.00	Bertha H. Walker Cobalt Beam Therapy Unit, through the Greater University Fund	1951
20.00	School of Public Health budget from Pan American Sanitary Bureau	
10.00	Warren Waite Memorial Library Fund	1951
10.00	Psychopathic Hospital budget from Eleanor Schultz	
10.00	William Harvey Emmons Fund, through the Greater University Fund	
2.50	Music Development Fund, through the Greater University Fund	
2.50	Thomas Heggen Memorial Book Collection Fund	1950
1.00	Fred B. Snyder Fund, through the Greater University Fund	

\$ 391,870.12

BOOK GIFTS, 1952-53

Publications of Professor Ross A. Gortner to the Gortner Collection from Mrs. Rachel Gortner Hayes, St. Paul, Minnesota  
 Three hundred sixty-five books, together with a bookcase to hold them, from the George Biese Estate to the West Central School and Experiment Station, Morris  
 One hundred twenty-five volumes from President Emeritus Guy Stanton Ford for the Ford Hall Library  
 To the University Library:  
 Collection of 750 miscellaneous books and pamphlets, many of which are Latin-American in origin, from Professor Emilio C. LeFort's heirs  
 First edition copies of five books for children by Wanda Gag from Robert Janssen, New York City, for the Kerlan Collection  
 To the Duluth Branch Library:  
 Two volumes, *Primitives and Essays on Art* by Max Weber of Great Neck, Long Island, New York, from Mr. Weber  
 Numerous books from eight donors, received from March 1 through August 31, 1952

MISCELLANEOUS GIFTS, 1952-53

To the Department of Art:  
 Numerous paintings, drawings, and prints from Hudson Walker  
 Painting, "Fantastic Rock, California," from Roy Neuberger, New York City  
 To the Department of Anthropology:  
 A copper spear of Indian workmanship from M. B. Elson, Gilbert, Minnesota, to the Museum collection  
 Ethnological specimens from the habitat of the Dakota Indians now resident in Manitoba, Canada, as additions to the Museum collection  
 Eleven specimens of ethnological materials from the Madras area of south India and one from Kashmir from Kathleen A. Norris, Sanford Hall  
 Specimen of a Kukri knife from Arthur E. Prell, Minneapolis  
 Thirteen prints of various Hindu deities from Mrs. Kathleen A. Norris of North Tonawanda, New York  
 To the University Art Gallery:  
 Two Elie Nadelman drawings from Carlebach Gallery, New York City  
 Drawing by David Smith from Mr. Smith, Terminal Iron Works, Bolton Landing, New York

- Diamond cubes for experimental work from Industrial Distributors Limited, Johannesburg, Union of South Africa, to the School of Mines and Metallurgy
- To the Department of Mechanical Engineering:
- One Chromatic Drum with case (\$75.00) from Fairbanks Morse Company, through H. E. Hanson, manager, Diesel Department, at 220 E. Fifth Street, St. Paul
  - One late model TH-200 ampere welding transformer from Harnischfeger Corporation, Milwaukee, Wisconsin
  - One model 720 domestic refrigerator from the Seeger Refrigerator Company
  - One link model TB4-125-D spring tester from Link Engineering Company, Detroit, Michigan, valued at \$555
- One fine quality automatic projection machine (\$600.00) from Mr. and Mrs. M. E. Herz, Minneapolis, to the Museum of Natural History
- Tapestries and period furniture from the Heffelfinger Estate
- Gift of "The Thomsonian Materia Medica," 1841, from Mrs. Frank G. Blood, Wilson, New York, to the Pharmaceutical Library
- A large collection of news clippings and magazine materials in the field of international relations and public affairs, collected by Mrs. Charles G. Johnson over a period of more than fifty years, from Charles G. Johnson and Ralph C. Johnson, Durand, Michigan, to the Department of Political Science
- Bound copies of the *Minneapolis Star*, *Minneapolis Tribune*, and *Minneapolis Star-Journal* from the *Minneapolis Star and Tribune* to the School of Journalism
- Sixty-four herbarium specimens of eastern plants from F. W. Hunnewell, Wellesley, Massachusetts, to the Herbarium of the Department of Botany
- A Baldwin electronic organ from J. M. Wylie, Wylie Piano Company, Minneapolis, to the Department of Music
- Psychometer from Lloyd L. McBurney, president, Rotary International, and Rollins Andrews, J. M. Dain and Company, Minneapolis, to the Department of Ophthalmology and Otolaryngology
- Recordings of the voices of the late Presidents William Watts Folwell and Cyrus Northrop from the Lucker Sales Company, Minneapolis, to the office of the director of University Relations
- One pyrex mirror for an astronomical telescope from Mrs. George A. Sharland, St. Paul, to the Department of Astronomy
- Equipment for classroom purposes from the Geological Society of Minnesota to the General College
- Fifteen or twenty stools from Major Mildred I. Clark, an Army Nurse, Minneapolis, to the Audio-Visual Laboratory, College of Education
- A fometer machine, valued at \$375, from the Champion Company of Springfield, Ohio, to the Course in Applied Mortuary Science
- To the Department of Poultry Husbandry:
- A Japanese Chicktester from American Chicktester Company, Los Angeles, California
  - A Sani Brood Feeding Battery with removable shovers and three and one-half units Hawkins Million Dollar Hen Laying Bird Cages from the A & P Feed Service Food Stores
- A framed reproduction of the Ten Commandments from the Fraternal Order of Eagles, Duluth, for the Duluth Branch
- To the Tweed Art Gallery, Duluth Branch:
- Cast bronze sculpture called "Horses Backing," by Anna Hyatt Huntington from Grace Pickett, New York City
  - Thirteen pictures from Mrs. George P. Tweed
  - Six paintings from Howard Lyon (Mrs. Tweed's brother)
  - A woodcarving of the showy lady's-slipper orchid flower (The Moccasin), State Flower of Minnesota, from Joseph Bogdanich, Eveleth, Minnesota
  - Twelve paintings valued at \$11,900 (by the late David Ericson), presented by his son, Dr. David Barnard Ericson, Lamont Geological Observatory, Columbia University, New York City
  - Nine paintings from Mr. and Mrs. Herbert A. Dancer, Duluth
- The following instruments whereby Royal Alworth of Duluth conveyed his Duluth residential property to the Regents:
- Conformed copy of Warranty Deed used to make this conveyance, dated January 2, 1953, registered, etc.
  - Owner's Duplicate Certificate of Title No. 123,194, etc., covering Lots 1, 2, 3, 14, 15, and 16 in Block 16, Willard's Addition to Duluth, etc.

### ASSIGNMENTS OF PATENT APPLICATIONS, 1952-53

- Assignment of application for patent Serial No. 335,539, Edward W. Davis, Grate Type Pelletizing Method and Apparatus
- Assignment of application for patent Serial No. 293,094, George A. Young, Jr., Method and Apparatus for Production of Quadraped Mammals
- Assignment of application for Patent Serial No. 298,556, Lloyd H. Reyerson, Pulping of Wood
- Assignment of application for patent Serial No. 285,315, William E. Parham, Chemical Process and Product
- Assignment of application for patent Serial No. 330,154, Fred Smith, Eli D. Besser, and Ralph E. Montonna, deceased, Process for Conditioning Plant Fibers for Spinning
- Order appointing Mrs. Mary Louise Montonna as Special Administratrix to the estate of Ralph E. Montonna

SUMMARY OF CASH GIFTS, 1953-54

Description	Number	Amount	Total
<b>Loan funds</b>			
New	5	\$ 4,485.00	
Additions to previous gifts	6	2,280.00	\$ 6,765.00
<b>Scholarship funds</b>			
New	26	94,126.39	
Additions to previous gifts	90	161,690.46	255,816.85
<b>Fellowship funds</b>			
New	6	22,284.00	
Additions to previous gifts	47	152,385.35	174,669.35
<b>Prizes</b>			
New	5	4,142.14	
Additions to previous gifts	37	3,940.00	8,082.14
<b>Research funds</b>			
New	95	714,419.24	
Additions to previous gifts	157	1,470,065.59	2,184,484.83
<b>Miscellaneous funds</b>			
New	37	788,886.48	
Additions to previous gifts	66	666,843.23	1,455,729.71
<b>Totals</b>	<b>577</b>		<b>\$4,085,547.88</b>

CASH GIFTS, 1953-54

Loan Funds—New

Amount		Year Established
\$ 2,000.00	From the John Deere Foundation, through the Greater University Fund, to establish a loan fund for needy students	1953
1,750.00	To establish a loan fund for interns of the University Hospitals to be known as the Jacob G. Cohen Loan Fund	1954
\$1,000.00	Mrs. Teresa Cohen	
500.00	Minnesota Medical Foundation	
150.00	Senator Donald Sinclair, through the Minnesota Medical Foundation	
100.00	Gerald T. Mullin	
500.00	From the Duluth Engineers' Club, through the Greater University Fund, for a loan fund for science students at the University of Minnesota, Duluth Branch	1954
185.00	For an emergency short-term loan fund for foreign students to be known as the Robert (Tsai-Hsing) Chen Memorial Loan Fund, through the Greater University Fund	1954
\$166.00	Various Memorials	
14.00	Staff of Agricultural Engineering	
5.00	Wesley Foundation	
50.00	From the National Farm Loan Association to establish a loan fund for students at the Southern School of Agriculture	1954
\$ 4,485.00		

Loan Funds—Additions to Previous Gifts

\$ 2,020.00	Henry J. Fletcher Memorial Aid Fund	1952
\$2,000.00	Charles Horn	
20.00	From 2 donors	
150.00	Duluth Branch Student Loan Fund from the Duluth Branch Faculty Variety Show	
50.00	Householders Student Loan Fund, through the Greater University Fund	1942
30.00	General Student Loan Fund	1944
25.00	Public Administration Alumni Student Aid and Loan Fund	1946
5.00	Law Alumni Loan Fund	1923
\$ 2,280.00		

Scholarship Funds—New

\$ 42,594.96	From the Estate of Katherine Lillian Kendall for scholarship assistance to worthy young women seeking an education	1954
30,000.00	From John and Mary R. Markle Foundation for a scholarship for Dr. William F. Scherer in Medical Sciences	1953

Amount		Year Established
4,000.00	From the Minnesota Section, American Institute of Mining and Metallurgical Engineers, through the Greater University Fund, for a scholarship in the School of Mines and Metallurgy	1954
4,000.00	From College Quiz Bowl students to establish a scholarship in the College of Science, Literature, and the Arts	1953
2,500.00	From Aluminum Company of America, through the Greater University Fund, for five scholarships of \$500 each in the Departments of Mechanical, Chemical, and Agricultural Engineering	1953
1,700.00	To establish the Martin William Case and George Leland Case Medical Scholarship Fund, through the Greater University Fund	1953
	\$700.00 Anonymous	
	426.78 Maude Case Anderson	
	350.00 Anonymous	
	223.22 Frank M. Anderson	
1,250.00	From C. A. McElvain, through the Greater University Fund, to establish a scholarship in memory of his son, Joseph	1954
1,000.00	From Mrs. N. Minora Sawyer, through the Greater University Fund, for a scholarship for medical students in memory of Herbert P. Sawyer	1954
1,000.00	From the Mayo Foundation and the Mayo Clinic (2 scholarships of \$500 each annually) for students entering upon their graduate work on the basis of engineering aptitude, scholarship, and interest in the field of medical instrumentation	1954
833.33	From Cleveland-Cliffs Iron Company, through the Greater University Fund, for scholarships in the School of Mines and Metallurgy	1954
600.00	From Mount Sinai Hospital Auxiliary to establish a scholarship in the field of nursing	1953
500.00	From M. Janet Lockhart, through the Greater University Fund (\$250 a year for 2 years), to establish a scholarship in memory of Blanche L. Thompson	1954
500.00	From General Electric Company to establish a scholarship in the School of Business Administration	1953
500.00	From General Electric Company to establish a scholarship for senior engineering students	1953
500.00	From Rayette, Incorporated, through the Greater University Fund, to establish an annual scholarship in the Department of Chemical Engineering	1954
400.00	From the American Society for Metals Foundation for Education and Research, through the Greater University Fund, for a scholarship in mines and metallurgy	1953
400.00	From the American Foundation for Pharmaceutical Education for two undergraduate scholarships of \$200 each in the College of Pharmacy	1954
373.10	From Electro Metallurgical Company (\$200 annually plus tuition and fees) for a scholarship in the School of Mines	1953
300.00	From Railway Business Women's Association of the Twin Cities for a scholarship for nurses	1954
250.00	From the Duluth Teachers Association, through the Greater University Fund, for a scholarship at the Duluth Branch	1954
250.00	From Richards Treat, Incorporated, for a scholarship for a student in home economics	1954
250.00	From the Head of the Lakes and Range Hoo Hoo Club, through the Greater University Fund, for a scholarship at the Duluth Branch	1954
175.00	From the Duluth Newspaper Guild, CIO Local No. 8 of the American Newspaper Guild, through the Greater University Fund, for a scholarship at the Duluth Branch	1954
150.00	From Duluth Engineers Club, through the Greater University Fund, for a scholarship at the University of Minnesota, Duluth Branch	1954
100.00	From the Northwestern Industrial Editors Association for an undergraduate tuition scholarship in journalism	1954
	From Antal Dorati, to provide twenty-six weeks of study with Mr. Dorati personally	1953
\$ 94,126.39		

#### Scholarship Funds—Additions to Previous Gifts

\$ 37,559.33	Wilbur H. Cherry Memorial Fund	
	\$35,000.00 Law School Council through the Greater University Fund	
	2,559.33 Through the Greater University Fund	
27,052.97	Henry L. Williams Memorial Scholarship through the Greater University Fund	
16,700.00	Tozer Foundation Undergraduate Scholarship Fund	1947
9,848.81	All-University Scholarship Fund	
	\$1,000.00 Occupational Therapy Association of Hawaii	
	750.00 British Embassy, Washington, D.C. (Razack Danmole)	

DIVISIONS OF BUSINESS ADMINISTRATION

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Amount		Year Established
750.00	British Embassy (A. A. Nwokeuku)	
750.00	Nigeria Liaison Office (Razack Danmole)	
650.00	Supreme Chapter P.E.O. Sisterhood, Portland, Oregon	
625.00	Imperial Oil Limited, Toronto, Canada (Ronald A. Burwash)	
625.00	Imperial Oil Limited	
600.00	Dr. Walter H. Ude	
500.00	Honolulu Japanese Junior Chamber of Commerce (Evelyn Kimura)	
500.00	Consolidated Freightways, Incorporated	
500.00	Maud E. Warwick Fund for War Orphans	
300.00	Women's Club of Saint Louis Park (Carol Jean Gust)	
300.00	Grand Lodge—Vasa Order of America (Kenneth A. M. Larson)	
300.00	Georges Spierer	
286.03	Near East Foundation (Abbas Karami)	
285.00	Near East Foundation (Abbas Ekrami)	
277.78	Korea Presbyterian Mission	
150.00	Minneapolis Urban League Guild (Carl Cockrell)	
150.00	Anonymous (Lorna Coyne)	
150.00	J. L. Winningham (H. Roberta Farnham)	
150.00	Mrs. Edyth F. Winningham (H. Roberta Farnham)	
150.00	Sigma Theta Pi	
100.00	Mrs. Edyth F. Winningham	
7,500.00	Borden Agricultural Scholarship Award (\$1,500.00 a year for five years)	1944
6,475.00	From Sears-Roebuck Foundation	
	\$4,225.00 Sears-Roebuck Agricultural Scholarship Fund	1947
	2,250.00 Sears-Roebuck Scholarship Fund	1950
5,513.91	North Star Scholarship Fund	1952
	\$5,000.00 Elisabeth M. Congdon	
	400.00 Through the Greater University Fund	
	113.91 Duluth Branch Faculty Variety Show	
5,325.50	University of Minnesota—SFAN Scholarship Fund	
	\$2,500.00 Minneapolis Gas Company	
	1,735.00 Minnesota Span Association	
	765.50 Social Service Council-Campus Carnival	
	300.00 Minnesota Span Association	
	25.00 Span	
3,000.00	John Morse Memorial Foundation Scholarship	1950
2,905.97	From Mrs. Hulda B. Rothschild for the Maurice L Rothschild Scholarship Fund (73 shares Inland Steel Stock)	1947
2,500.00	David Grimes Scholarship Fund through the Greater University Fund	1949
2,125.00	School of Social Work Scholarship Fund	1947
	\$2,000.00 Anonymous	
	125.00 George Davis Bivin Foundation, Incorporated	
2,000.00	Reserve Mining Company Taconite Scholarship Fund	1953
2,000.00	H. W. Wilson Scholarship Fund	1950
2,000.00	Nash Foundation Scholarship Fund	1952
1,800.00	Social Service Council Scholarship Fund	1950
1,682.34	University Artists Course Music Scholarship Fund	1953
	\$1,665.50 From Artists Course receipts	
	10.00 Mrs. Betty J. Riedler	
	6.84 University of Minnesota, A Capella Choir, through the Greater University Fund	
1,250.00	Minnesota Surveyors and Engineers Society Highway Engineering Scholarship (annual)	1953
1,200.00	Minneapolis Woman's Club Scholarship Fund	1948
1,200.00	Douglas Scholarship (annual) from Douglas Aircraft Company	1946
1,000.00	Dr. E. S. Mariette Scholarship from the Hennepin County Tuberculosis Association	1950
1,000.00	Charles Pfizer and Company Scholarship	1953
1,000.00	Ossanna Transportation Foundation Scholarship from Fred A. Ossanna, through the Greater University Fund	1952
1,000.00	Herman J. Lange Scholarship, through the Greater University Fund	1953
1,000.00	Flour City Architectural Education Fund (Annual Scholarship) from Flour City Ornamental Iron Company	1945
1,000.00	Minnesota State Federation of Labor Scholarship and George Lawson Scholarship Fund	1952
872.00	Katharine Densford Scholarship Fund	1950
	\$857.00 Through the Greater University Fund	
	15.00 Irene Ann Sobotka, through the Greater University Fund	
800.00	RCA Scholarship Fund	1945
750.00	Ford Motor Company Scholarship Fund (plus tuition and fees)	1952
700.00	National Society of the Colonial Dames of America in the State of Minnesota Scholarship	1953
600.00	Julia Marshall Scholarship, through the Greater University Fund	1949
600.00	National Hillel Commission Scholarship (annual)	1944

Amount		Year Established
590.58	Foreign Student Emergency Aid and Scholarship Fund	1953
\$340.58	Student Activities Bureau, through the Greater University Fund	
200.00	Marietta Savage Circle	
50.00	Greater Minneapolis Council of Churches	
508.20	Harold Prehn Foundation Scholarship	1951
507.25	Marion L. Vannier Scholarship Fund	1929
\$400.00	Powell Hall Carnival	
66.00	Sigma Theta Tau	
22.00	University of Minnesota School of Nursing Alumnae Association, through the Greater University Fund	
19.25	Powell Hall Student Council	
500.00	Junior Achievement of Minneapolis, Incorporated, Scholarship	1952
500.00	Iron Mining Industry Scholarship, through the General University Fund	1953
500.00	Archer-Daniels-Midland Company Scholarship	1952
500.00	Louis Allis Company Engineering Scholarship	1952
500.00	Minneapolis Thrift Committee Scholarship	1952
500.00	Minneapolis Gas Company Service Scholarship	1948
381.05	Minnesota Alumnae Club Scholarship Fund	1952
350.00	Square D Company Scholarship Fund	1953
344.27	Minnesota Alumni Scholarship Fund	1950
\$300.00	Through the Greater University Fund	
44.27	Pi Delta Nu	
300.00	St. Paul Sales Executives Club Scholarship, through the Greater University Fund	1953
300.00	Faith Thompson Scholarship Fund	1948
300.00	F. H. Peavey and Company-Van Dusen Harrington Company Undergraduate Scholarship Fund	1947
268.00	North Side Pharmacists Club Scholarship	1950
251.00	Women's Physical Education Alumnae Association Scholarship	1950
\$250.00	Women's Physical Education Alumnae Association, through the Greater University Fund	
1.00	Through the Greater University Fund	
250.00	The Presser Foundation Scholarship	1945
225.00	Minnesota State Pharmaceutical Association Scholarship	1917
225.00	Alpha Zeta Traveling Scholarship (annual)	1949
223.14	Special Education Scholarship, through the Greater University Fund	1953
200.00	Ochs Brick and Tile Company Scholarship Fund (formerly Ochs Brick and Tile Company Prize)	1951
200.00	C. H. Johnston Scholarship Fund (formerly C. H. Johnston Prize)	1945
200.00	Magney, Tusler and Setter Scholarship Fund (formerly Magney, Tusler and Setter Prize)	1948
200.00	Minnesota High School Press Association Scholarship, through the Greater University Fund	1944
200.00	Progressive Club of Minneapolis Scholarship	1951
200.00	Chi Psi Fraternity Scholarship (annual)	1946
200.00	Mary Farrell Coffman Scholarship (annual) from the Faculty Women's Club	1945
200.00	French Government Scholarship	1950
130.00	Anna Von Helmholtz-Phelan Scholarship in Creative Writing, through the Greater University Fund	1949
122.67	Nina Morais Cohen Scholarship Fund from the Minneapolis Section, National Council of Jewish Women	1926
100.00	University of Minnesota Women's Club of Detroit Scholarship (annual)	1949
100.00	Student Section of the Faculty Women's Club Scholarship (annual)	1951
100.00	Northwest Daily Press Association Scholarship (annual)	1935
100.00	Minneapolis Women's Advertising Club Scholarship (annual)	1947
100.00	Anne Dudley Blitz Scholarship from Faculty Women's Club, Student Section	1951
100.00	Burpee Award in Horticulture (annual scholarship) from W. Atlee Burpee Company	1946
100.00	Phi Upsilon Omicron Scholarship (annual)	1926
100.00	Minneapolis Reciprocity Committee of P.E.O. Sisterhood Scholarship	1953
100.00	Maria Starovich Memorial Scholarship Fund from Comstock Hall Residents	1952
100.00	Sanford Hall Scholarship (annual)	1946
90.00	Sigma Alpha Iota Alumnae Group Scholarship (annual)	1947
88.00	Lura C. Hutchinson Scholarship Fund from Alumni Association, Division of Library Instruction	1945
82.70	Alpha Tau Delta Scholarship Fund	1935
65.00	William A. O'Brien Scholarship Fund	1947
\$40.00	Orbs	
25.00	Alpha Delta	
65.00	Robert V. Cram Memorial Scholarship (annual)	1948
\$55.00	Gertrude Schill Cram	
10.00	Hester J. Dawson	
60.00	German House Scholarship Fund, from Lynwood G. Downs	1951

Amount		Year Established
54.92	Julia Hess Scholarship from St. Paul Section, National Council of Jewish Women	1931
51.85	Van Dale Farm Machines, Incorporated, Scholarship	1952
50.00	Agricultural Faculty Women's Club Scholarship (annual)	1932
50.00	Sigma Epsilon Sigma Scholarship Fund	1953
50.00	Alpha Xi Delta Alumni Association Scholarship (annual)	1950
50.00	Home Economics Association Scholarship (annual)	1924
50.00	Alpha Zeta Scholarship (annual)	1922
35.00	Florence Munson Wilson Memorial Scholarship Fund	1947
10.00	Anne Fenlason Memorial Scholarship, through the Greater University Fund	1950
1.00	Sigma Delta Tau Alumni—Serene Harris Abrahams Memorial Scholarship (annual) through the Greater University Fund	1951

\$ 161,690.46

*Fellowship Funds—New*

\$ 6,534.00	From the Maternity Hospital, Incorporated, for the support of three medical fellowships in obstetrics and gynecology	1953
5,750.00	From the United States Public Health Service to provide a fellowship in physical medicine and rehabilitation for Dr. Sarah Jane Gault under the direction of Dr. F. J. Kottke	1953
5,000.00	From Lewis and Annie F. Paper Foundation, Incorporated to establish a fellowship in proctology	1953
3,500.00	From the Rockefeller Foundation for a fellowship on legal systems for David Cooperman for study at Columbia University	1954
1,500.00	From the Trane Company for a research fellowship in mechanical engineering	1954
	One or two years in residence at the Mayo Clinic with salary for graduate students in electrical engineering who show a high degree of engineering aptitude for, and interest in, the field of medical instrumentation from the Mayo Foundation and the Mayo Clinic	1954

\$ 22,284.00

*Fellowship Funds—Additions to Previous Gifts*

\$ 12,050.00	Caroline M. Crosby Memorial Fellowship in Botany	1953
	\$10,000.00 John Crosby	
	600.00 Two anonymous donors	
	300.00 Mrs. Richard H. Field	
	300.00 Sumner McKnight Crosby	
	300.00 Mrs. Franklin M. Crosby, Jr.	
	300.00 Thomas M. Crosby	
	100.00 Mrs. Esther V. Crosby	
	75.00 Mrs. Albert H. Crosby	
	75.00 Mrs. Albert H. Crosby	
8,027.00	Mount Sinai Hospital Fellowship—surgery	1951
6,600.00	United States Rubber Company—Pre-doctoral Fellowship	1947
6,534.00	Sister Elizabeth Kenny Foundation Fellowship in Pediatrics	1949
6,176.00	Minneapolis-Honeywell Research Fellowship Fund	1946
6,000.00	Helen Hay Whitney Research Fellowship	1952
5,856.00	St. Paul Children's Hospital Fellowship in Pediatrics and Research	1945
	\$3,878.00 Webb Publishing Company	
	2,178.00 Children's Hospital, Incorporated	
5,604.10	Monsanto Chemical Company Graduate Fellowship in Organic Chemistry	1946
4,563.55	From the Allied Chemical and Dye Corporation	
	\$2,356.55 Fellowship in Chemistry	1941
	2,207.00 Fellowship in Chemical Engineering	1941
4,500.00	Sister Elizabeth Kenny Foundation Fellowship for 1953-54	1949
4,440.00	Eli Lilly Fellowship in Animal Breeding	1950
4,356.00	St. Joseph's Hospital Fellowship in Obstetrics and Gynecology	1952
4,356.00	St. Joseph's Hospital Fellowship in Surgery	1950
4,000.00	John Cowles Foundation Fellowship	1952
4,000.00	Minnesota Mining and Manufacturing Company Fellowship	1946
3,700.00	Armour and Company Fellowship (annual)	1951
3,700.00	Quaker Oats Company Fellowship in Milling Engineering	1952
3,650.00	American Foundation for Pharmaceutical Education—Pharmaceutical Chemistry Fellowship	1947
3,532.70	Charles T. Miller Hospital Fellowship in Obstetrics and Gynecology	1946
3,500.00	Du Pont Postgraduate Teaching Fellowship in Chemistry	1946
3,311.50	Alpha Phi Cardiac Fellowship Fund	1947
3,300.00	General Electric Company Fellowship in Chemistry	1952
3,300.00	Du Pont Postgraduate Fellowship in Chemical Engineering	1946
3,300.00	Carbide and Carbon Chemicals Corporation Fellowship in Organic Chemistry	1946

Amount		Year Established
3,106.55	Gulf Oil Corporation Fellowship (geology)	1952
3,100.00	Procter and Gamble Company Fellowship in Chemical Engineering	1948
2,756.55	Eastman Kodak Company Fellowship	1953
2,500.00	Dow Chemical Company Fellowship in Chemistry	1952
2,500.00	Minneapolis Grain Exchange Fellowship	1953
2,250.00	The Visking Corporation Fellowship	1951
2,200.00	Parke, Davis and Company Fellowship in Chemistry	1952
1,893.00	Norwegian-American Graduate Fellowship Fund from the Norwegian Luncheon Club	1945
1,890.00	Social Science Research Council Fellowship	1951
1,872.00	Firestone Fund	1934
1,800.00	American Cyanamid Company Graduate Fellowship (and fees)	1951
1,560.00	Ralston Purina Company Fellowship in Veterinary Medicine	1950
1,420.55	California Company Fellowship	1951
1,200.00	American Association of University Women—Minnesota State Division—Fellowship Fund (annual alternate years)	1943
1,080.00	Social Science Research Council Fellowship—business administration	1952
995.00	Mount Sinai Hospital Fellowship—radiology	1952
750.00	E. J. Longyear Company Graduate Fellowship in Economic Geology	1946
500.00	Minnesota State Pharmaceutical Association Graduate Fellowship (annual)	1931
289.85	Miller Hospital Fellowship Fund	1941
200.00	General Mills, Incorporated, Graduate Fellowship in Organic Chemistry	1951
100.00	Clara Ueland Fellowship, through the Greater University Fund	1928
50.00	Public Administration Fellowship Fund (formerly Public Administration Alumni Student Aid and Loan Fund)	1946
15.00	John Torrance Tate Fellowship Fund, through the Greater University Fund	1950
<b>\$ 152,385.35</b>		

#### Prizes—New

\$ 2,830.14	From the J. L. Washburn Memorial Fund, administered by the Northern Minnesota National Bank, Duluth, for awards for excellence in scholarship to graduating seniors at the University of Minnesota, Duluth Branch, administration of fund turned over to the University of Minnesota by Order of the District Court, 11th Judicial District	1954
1,000.00	Bequest in the will of Dr. C. G. Selvig, for scholarship awards at the Northwest School and Station, to be known as the Marion W. Selvig Award Fund	1954
167.00	From relatives and friends of Elliot Baron, for an award to be given to a student in journalism, to be known as the Elliot Baron Memorial Award Fund	1954
100.00	From Mrs. Sophie Pendergast White, for an award to a student in the St. Paul Campus School of Agriculture making the greatest progress in English	1953
45.00	Student Social Fund Prize	1954
<b>\$ 4,142.14</b>		

#### Prizes—Additions to Previous Gifts

\$ 2,500.00	Borden Undergraduate Research Award in Medicine	1945
300.00	Thomas F. Ellerbe Prize in Architecture	1949
200.00	Magney, Tusler and Setter Prize	1948
175.00	John S. Pillsbury Prize	Prior to 1926
105.00	Minneapolis District Dental Society Auxiliary Awards	1954
100.00	Southern Minnesota Medical Association Prize	1930
100.00	Frank H. Peavey Prize	1944
100.00	Chemistry Faculty Prize	1946
100.00	George B. Melcher Prize	1945
60.00	American Society of Civil Engineers—Northwestern Section Prize	1924
50.00	Class of 1889 Memorial Prize	
50.00	Gargoyle Club Prize (books)	1931
50.00	Francis H. DeGroat Memorial Award	1950
25.00	Women's Auxiliary of the American Veterinary Medical Association Award	1952
10.00	Alpha Chi Sigma Twin City Alumni Association Prize (books)	1929
10.00	Kappa Epsilon Award	1937
5.00	Minnesota Bookstore Prize	
	American Institute of Architects Medal	
	Alpha Rho Chi Medal	
	Alpha Kappa Psi Junior Scholarship Medallion	1937
	Chi Epsilon Prize (handbook)	
	Delta Sigma Pi Scholarship Key	1929
	Eta Kappa Nu Award	1931
	Dean E. M. Freeman Medal for Student Leadership	1930

Amount		Year Established
	Lehn and Fink Gold Medal	1923
	Phi Delta Junior Scholarship Award	1939
	Phi Lambda Upsilon Prize	1926
	Louise M. Powell Prize	1928
	Merck and Company Award (textbooks)	
	Sigma Alpha Iota Group Award	1947
	Sigma Delta Chi Scholarship Award (certificate)	1945
	Theta Sigma Phi Leadership Award	1945
	University Business Women's Club Scholarship Key	1939
	University of Minnesota Student Branch of the Institute of Aeronautical Science Prize	1938
	Wulling Club Key	1930
	Pi Tau Sigma Prize	1913
	Merriam-Webster Prize	

\$ 3,940.00

Research Funds—New

\$ 216,109.00	From the United States Public Health Service	
\$16,999.00	For research on etiology of postgastrectomy anemia under the direction of Dr. William D. Kelly (medicine) (\$8,500.00 accepted June 13, 1953)	1953
16,869.00	For research on development of swine for use in research under the direction of Professor David C. England (Hormel Institute)	1954
16,601.00	For research on biostatistical aids under the direction of Professor Alan E. Treloar (medicine)	1953
15,288.00	For research on adjustment of children, based upon a follow-up of Nobles County Children, under the direction of Professor John E. Anderson (child welfare)	1953
15,000.00	For research on immunity in experimental cancer, under the direction of Dr. J. T. Syvertson (medicine)	1954
14,893.00	For a social adjustment study under the direction of Dr. Starke Hathaway (medicine)	1954
14,811.00	For research of techniques for quantitative histochemistry under the direction of Dr. David Glick (medicine)	1953
12,262.00	For research on barbiturate intoxication under the direction of Dr. F. Y. Tichy (medicine)	1954
10,758.00	For research on effect of dental materials upon the periodontal tissues under the direction of Dr. Helmut A. Zander (dentistry)	1954
10,000.00	For research on renal blood flow under the direction of Dr. William G. Kubicek (medicine)	1954
9,253.00	For research on the significance of magnesium in malignant diseases under the direction of Dr. B. J. Kennedy (medicine)	1953
8,703.00	For studies of steroid metabolism in surgical patients under the direction of Dr. Bernard Zimmermann (medicine)	1953
8,658.00	For research in arteriosclerosis under the direction of Dr. Ivan D. Frantz, Jr. (medicine)	1954
8,442.00	For research on Actomyosin under the direction of Dr. C. T. Evans (medicine)	1954
7,642.00	For research on nervous system disease as related to lung pathology under the direction of Dr. Maynard Cohen (medicine)	1953
7,618.00	For research of bovine and porcine leptospirosis under the direction of Dr. H. C. H. Kernkamp (agriculture)	1953
7,597.00	For study of acid derivatives in cancer under the direction of Dr. Raymond N. Bieter (medicine)	1953
4,914.00	For research on axo and oxazin-quinone-imine dyes under the direction of Dr. W. Lane Williams (medicine)	1953
4,745.00	For research on preclinical stages of diabetes mellitus under the direction of Dr. E. T. Bell (medicine)	1954
3,556.00	For research on anticoagulants under the direction of Dr. P. G. Frick (medicine)	1953
1,000.00	For research on the effects of magnesium under the direction of Dr. G. M. Yamane (medicine)	1953
500.00	For research on enzymes under the direction of Professor Paul D. Boyer (agriculture)	1954
90,774.00	From Louis W. and Maud Hill Family Foundation for research on autonomic tests under the direction of Dr. Ernst Gellhorn (medicine)	1953
70,838.00	From Louis W. and Maud Hill Family Foundation (over a three-year period) for research on spontaneous hypoglycemia under the direction of Dr. I. McQuarrie (medicine)	1954

Amount		Year Established
30,740.00	From Louis W. and Maud Hill Family Foundation for research on metabolism of the fetus in utero under the direction of Dr. Irwin Kaiser (medicine)	1953
15,750.00	From the American Heart Association, Incorporated, (\$5,250.00 annually for three years) for research on degenerative heart disease under the direction of Dr. Ancel Keys (medicine)	1954
15,075.00	From the Rockefeller Foundation for studies of social disorganization to be conducted by Professor A. M. Rose (sociology)	1953
15,000.00	From the American Cancer Society, Incorporated, for research on normal and malignant proliferating tissues under the direction of Dr. C. P. Barnum (medicine)	1954
15,000.00	From the National Science Foundation for research on reaction kinetics of crushing under the direction of Professor E. L. Piret (technology)	1953
12,000.00	For research on milk marketing to be known as the Agricultural Economic Research Fund (agriculture)	1953
	\$8,000.00 Northland Foundation	
	4,000.00 Through the Greater University Fund	
11,000.00	From General Foods Corporation for research on commercial monoglycerides at the Hormel Institute (Graduate School)	1954
11,000.00	From Time, Incorporated, for a study of specific historical events under the direction of the School of Journalism (Journalism)	1953
10,000.00	From the Estate of Dr. Lynwood D. Keyser for research in urinary lithiasis (medicine)	1954
9,900.00	From Life Insurance Medical Research Fund (over a two-year period) for research on intracardiac surgery under the direction of Dr. C. Walton Lillehei (medicine)	1954
9,881.67	From Northwest Research Foundation to establish a project at the University as yet undetermined (technology)	1954
9,000.00	From the Minnesota Heart Association for cardiovascular research by Dr. Ivan D. Frantz (medicine)	1953
8,250.00	From the National Science Foundation for a follow-up study of high school graduates under the direction of Professor Ralph F. Berdie (Dean of Students)	1954
8,000.00	To establish a fund for research in agronomy and plant genetics (agriculture)	1953
	\$7,500.00 Through the Greater University Fund	
	500.00 From E. I. du Pont de Nemours & Company	
7,518.66	From various donors, through the Greater University Fund, for a research fund in pediatrics to be known as the McQuarrie Pediatrics Fund (medicine)	1954
7,290.00	From Louis W. and Maud Hill Family Foundation for research on Minnesota clays under the direction of Mrs. Ruth Lawrence (art)	1954
6,500.00	From the Minnesota Division, American Cancer Society, Incorporated, for research on inbred stocks of mice under the direction of Dr. J. J. Bittner (medicine)	1953
6,300.00	From the American Heart Association for research on necrotizing lesions under the direction of Dr. Robert Good (medicine)	1954
6,220.00	From the American Cancer Society, Incorporated, for research on growth of cancer under the direction of Dr. K. W. Stenstrom (medicine)	1954
6,000.00	From the American Dairy Association for research on fats under the direction of Dr. Ancel Keys (medicine)	1953
5,520.00	From E. I. du Pont de Nemours and Company for research on the use of trichlorethylene extracted from meat scraps (agriculture)	1953
5,446.00	From Louis W. and Maud Hill Family Foundation for research on bile pigments under the direction of Dr. Paul T. Lowry (medicine)	1953
5,460.41	For surgical research under the direction of Dr. Owen Wangenstein and Dr. Davitt Felder (medicine)	1953
	\$5,260.41 From Mrs. George P. Tweed, through Minnesota Medical Foundation (300 shares Colorado Fuel and Iron Corporation)	
	200.00 Donald Allbee	
5,000.00	From Helen Hay Whitney Foundation for research on the mechanism of the Schwartzman phenomenon under the direction of Dr. Chandler A. Stetson (medicine)	1954
4,725.00	From the American Heart Association for research on experimental myocarditis and valvulitis under the direction of Dr. Joel G. Brunson (medicine)	1954
4,320.00	From Louis W. and Maud Hill Family Foundation for research on faint blue stars by Professor W. J. Luyten (astronomy)	1954
4,250.00	From Research Corporation for research on organic solvents under the direction of Professor I. M. Kolthoff (technology)	1954
4,200.00	From the American Heart Association for research on cardiac tissue under the direction of Dr. H. Mead Cavert (medicine)	1954
4,200.00	From the Minnesota Division of the American Cancer Society, Incorporated, for research on genesis of mammary cancer in mice under the direction of Dr. M. J. Frantz (medicine)	1953
4,100.00	From Wisconsin Cooperative Bull Studs for research (agriculture)	1953
4,000.00	From the Portland Cement Association for research on vapor movement through concrete masonry material (technology)	1954

Amount		Year Established
3,500.00	For study on frost heaving (technology).....	1953
	\$3,000.00 Refrigeration Research Foundation	
	500.00 American Society of Refrigerating Engineers	
3,002.00	From Minnesota Division, American Cancer Society, Incorporated, for research on cured cases of gastric cancer under the direction of Dr. Stuart W. Arhelger (medicine).....	1953
3,000.00	From Eli Lilly and Company for research on enzyme activity under the direction of Professor Paul D. Boyer (agriculture).....	1953
3,000.00	From the Bakelite Company for frozen foods research (agricul- ture).....	1953
2,805.00	From Research Corporation for research on thermal diffusion of large molecules under the direction of Professor Stephen Prager (technology).....	1954
2,800.00	From Pennsylvania Salt Manufacturing Company for research on the effect of feeding lye to swine under the direction of Professor L. E. Hanson (agriculture).....	1954
2,625.00	From the American Heart Association for research on diabetes insipidus under the direction of Dr. Carl S. Alexander (medicine).....	1954
2,600.00	From Twin City Milk Producers Association for research on bulk handling of milk (agriculture).....	1953
2,579.50	From Scholastic Roto, Incorporated, for research under the direc- tion of the School of Journalism (journalism).....	1954
2,500.00	From Charles Pfizer Company for research on bluecomb disease of turkeys (agriculture).....	1954
2,500.00	From Eli Lilly and Company for research on bacterial enzyme systems under the direction of Dr. Herman C. Lichstein (medi- cine).....	1953
2,500.00	From Sharp and Dohme Division, Merck and Company, Incorpo- rated, for research on sulfa drugs (medicine).....	1954
2,500.00	From Sharp and Dohme for research on fatty acids at the Hormel Institute (Graduate School).....	1954
2,200.00	From the Minnesota Division, American Cancer Society, Incorpo- rated, for research on cortisone-treated animals under the direc- tion of Dr. Claude R. Hitchcock (medicine).....	1953
2,190.00	From Minnesota Division, American Cancer Society for research on pituitary growth hormone under the direction of Dr. Lillehei (medicine).....	1953
2,000.00	From Otto Bremer Foundation for research on cardiac dynamics by Dr. William F. Mazzitello at Ancker Hospital (medicine).....	1954
2,000.00	From Minnesota Division, American Cancer Society for research on biological evaluation of gamma radiation by Dr. Donn Mosser (medicine).....	1953
2,000.00	Northwest Feed Manufacturers Association for research in swine and pig nutrition requirements under the direction of the Depart- ment of Animal Husbandry (agriculture).....	1953
2,000.00	From Vy-Lactos Laboratories, Incorporated, for research on nutri- tive qualities of fish solubles and molasses in poultry nutrition (agriculture).....	1954
1,800.00	From G. D. Searles and Company to defray costs of X-rays and laboratory studies in a group of patients with cancer of the pro- state to be treated with vallestrel (medicine).....	1954
1,650.00	For surgical research in heart disease in memory of Rose Wangen- steen.....	1953
	\$1,250.00 Minnesota Medical Foundation	
	350.00 Charles W. Wangensteen, through Minnesota Medical Foundation	
	25.00 Mrs. Alvina Wangensteen Fossum, through the Greater University Fund	
	25.00 Dr. Owen H. Wangensteen	
1,500.00	From American Concrete Pipe Association for research on concrete drain tile (technology).....	1953
1,500.00	From Minnesota and Ontario Paper Company for research under the direction of the School of Forestry (forestry).....	1953
1,500.00	From Atlas Powder Company for research on fats under the direc- tion of Professor W. O. Lundberg, Hormel Institute (Graduate School).....	1954
1,250.00	From Webster Lumber Company, through the Greater University Fund, for use in research projects in the School of Forestry (forestry).....	1954
1,000.00	From Minnesota Valley Breeders Association, through the Greater University Fund, for a research on artificial breeding of dairy cattle (agriculture).....	1953
1,000.00	From Shell Chemical Corporation for research on control of soil fungi affecting canning crops (agriculture).....	1953
1,000.00	From Hess and Clark for research on diseases of poultry (agricul- ture).....	1953
800.00	From American Medical Association, Council on Pharmacy and Chemistry, for research on liver injury under the direction of Dr. Carl J. Alexander (medicine).....	1954
500.00	From Pittsburgh Coke and Chemical Company for research on the use of chemicals in control of weeds (agriculture).....	1953

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Amount		Year Established
500.00	From the Foundry Educational Foundation for use of the Department of Mechanical Engineering for foundry educational activities (technology)	1954
500.00	From Velsicol Corporation, through the Greater University Fund, for research projects in the Department of Entomology (agriculture)	1954
500.00	From the American Medical Association, for research on intracardiac surgery under the direction of Dr. Morley Cohen (medicine)	1953
500.00	From Life Insurance Medical Research Fund for laboratory expenses for Dr. Morley Cohen's research fellowship in surgery (medicine)	1953
350.00	From the Flox Company, through the Greater University Fund, to establish research in sanitary engineering (technology)	1953
300.00	From the Life Insurance Medical Research Fund for laboratory expenses for Ellsworth R. Buskirk's research fellowship in physiological hygiene (medicine)	1953
300.00	From the American Philosophical Society for research in anthropology under the direction of Professor Wilson D. Wallis (anthropology)	1953
100.00	From Dr. William Evers to establish the "Special Research Fund in Anesthesiology" (medicine)	1954
100.00	From Northwest Retail Feed Association, Incorporated, through the Greater University Fund, to establish a fund for research in animal husbandry (agriculture)	1954
100.00	From Northwest Retail Feed Association, Incorporated, through the Greater University Fund, to establish a fund for research in poultry husbandry (agriculture)	1954
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\$ 714,419.24		

*Research Funds—Additions to Previous Gifts*

\$ 565,167.38	From the United States Public Health Service	
\$53,484.00	For research on experimental endocarditis (medicine)	1950
30,000.00	For research on diet, activity, and hypertension (medicine)	1947
30,000.00	For research on energy metabolism of heart muscle (medicine)	1952
26,399.00	For research on pathogenesis of rheumatic fever (medicine)	1950
25,000.00	For cancer teaching and clinical cancer research (medicine)	1948
25,000.00	For research on the genesis of mammary cancer in mice (medicine)	1947
23,926.00	For research on endogenous and exogenous cerebral toxins (medicine)	1952
20,000.00	For research on rheumatic fever (medicine)	1947
18,184.00	For research on etiology of acid peptic ulcer (medicine)	1947
17,500.00	For research on rapid isolation of pathogenic agents (medicine)	1952
15,991.00	For research on malnutrition (medicine)	1952
15,903.00	For research on the mechanism of allergic encephalomyelitis (medicine)	1951
15,000.00	For research on aging in relation to diet (medicine)	1947
14,496.00	For research on the metabolism and composition of the skeleton (medicine)	1947
13,601.00	For research on cancer on the steroidal conjugation (medicine)	1950
13,500.00	For cancer research (medicine)	1946
13,456.00	For rehabilitation activity research (medicine)	1952
11,309.00	For research on conjugation of steroids in the body (medicine)	1948
11,059.00	For research on intracardiac surgery (medicine)	1952
9,996.00	For research on dioxide concentration (medicine)	1951
9,936.00	For study of chronic experimental heart failure (medicine)	1953
9,455.00	For research on the central nervous system (medicine)	1953
9,450.00	For research on virus diseases affecting man and swine (Hormel Institute) (Graduate School)	1952
8,500.00	For research on the effect of heat and cold on the central nervous system (medicine)	1951
8,226.00	For research on periodontal diseases (dentistry)	1952
8,100.00	For research on metabolism of nucleic acid (medicine)	1952
7,500.00	For research on bacteria within plankton organisms (medicine)	1953

DIVISIONS OF BUSINESS ADMINISTRATION

Amount		Year Established
7,500.00	For research on the mammalian skeletal muscle (medicine)	1952
7,500.00	For research on parametric electrocardiograms (physics)	1949
7,358.00	For research on dental caries (dentistry)	1951
6,857.00	For research on interactions of proteins (medicine)	1947
6,550.00	For research on the influence of aureomycin (medicine)	1951
6,229.00	For the study of bone growth after poliomyelitis (medicine)	1951
6,026.00	For vital staining research (medicine)	1950
6,000.00	For research on vitamins and amino acids (medicine)	1950
5,374.00	For research on endocrine glands of the fetus (medicine)	1950
5,058.00	For studies of nitrification of soils (agriculture)	1951
4,968.00	For research on the biology of human breast cancer (medicine)	1948
4,838.00	For research on the reactions of the hepatic parenchyma in injury and repair (medicine)	1948
4,800.00	For investigations of renal function in dairy cattle (agriculture)	1951
4,320.00	For research on experimental diabetes mellitus (medicine)	1950
4,000.00	For research on nutritional requirements of the early embryo (medicine)	1950
3,963.38	For research on gastric carcinogenesis (medicine)	1950
3,370.00	For research on bacteria in unsaturated fatty acids (agriculture)	1950
2,900.00	For research on inorganic ions (medicine)	1951
2,515.00	For research on cancer of steroidal conjugation mechanism (medicine)	1950
89,180.00	National Foundation for Infantile Paralysis, Incorporated, Host Cell-Virus Relationship Research (medicine)	1949
75,000.00	American Cancer Society, Incorporated, Cancer Research (medicine)	1949
70,000.00	Minnesota Heart Association Cardiovascular Research Fund (medicine)	1950
30,000.00	Damon Runyon Memorial Fund—Cancer Reoperative Studies (medicine)	1951
30,000.00	E. I. du Pont de Nemours and Company Chemistry Research (1954-55 and 1955-56) (technology)	1949
30,000.00	Louis W. and Maud Hill Family Foundation Dairy Research (agriculture)	1950
28,000.00	Dr. Frank E. Burch Research Fund in Ophthalmology (medicine)	1943
	\$25,000.00 Hamm Foundation	
	1,500.00 Otto Bremer Foundation	
	1,000.00 F. A. Bean Foundation, Incorporated	
	1,000.00 Frederick Brewster	
	500.00 Mrs. Walter B. Driscoll	
20,000.00	Damon Runyon Memorial Fund—Research on Therapy of Cancer (medicine)	1951
19,900.00	Minnesota Division, American Cancer Society, Incorporated, Physiological Determinants of Carcinogenesis Research Fund (medicine)	1951
19,400.00	Rockefeller Foundation Research on Human Genetics (medicine)	1951
18,845.43	Malignant Disease Research Fund (medicine)	1946
	\$14,215.76 Through the Minnesota Medical Foundation:	
	\$5,000.00 Jay Phillips (Jay and Rose Phillips Fund for Surgical Research)	
	1,527.76 Dr. Richard Varco	
	1,200.00 Dr. Lyle French	
	1,000.00 R. C. Hitchcock & Sons	
	1,000.00 K. W. McKee (K. W. McKee Fund)	
	500.00 Minnesota Joint Board of Amalgamated Clothing Workers of America	
	500.00 George Leonard (George and Elizabeth Leonard Fund for Cancer Research)	
	500.00 Elmer W. Wylie (Elmer W. Wylie Fund for Surgical Research in Cancer)	
	500.00 John C. Benson	
	500.00 Harry J. Reicher	
	300.00 American State Bank of Williston, North Dakota	
	300.00 Victor F. Rotering	
	250.00 Anderson & Sons, Incorporated	
	200.00 Charles J. Upin	
	200.00 Frank A. Nelson	
	200.00 Louis Melamed	
	100.00 Mrs. Albert G. Minda	

Amount		Year Established
	100.00 Nathan T. Nemetz	
	338.00 Various donors	
	1,837.37 Minnesota Medical Foundation	
	500.00 Lax Electric Company, Incorporated	
	460.00 Chippewa County Community Chest	
	200.00 O. William Simonson	
	67.00 Through the Greater University Fund	
	1,565.30 From various donors	
17,641.47	Society for Preservation and Encouragement of Barbershop Quartette Singing in America—Medical Research Fund (medicine) (\$6,450.00 from Minnreg Veterans Association)	1951
16,500.00	Minneapolis Grain Exchange—Insect and Rodent Contamination of Grain Investigations (agriculture)	1952
15,500.00	National Science Foundation—Atomic Mass Determination (physics)	1953
15,000.00	American Cancer Society, Incorporated, Research on Mammary Milk Agent in Mice (medicine)	1946
14,500.00	American Dairy Association Fund for Research (agriculture)	1948
14,089.00	Green Giant Company Disease Research Fund (agriculture)	1949
14,000.00	Minnesota Turkey Growers Association—Research in Salmonella Infections in Turkeys (agriculture)	1951
12,600.00	American Heart Association Research on Rheumatic Fever (\$6,300 a year for 2 years) (medicine)	1954
12,428.00	Louis W. and Maud Hill Family Foundation (two years)—Research in Heart Disease—Ancker Hospital (medicine)	1951
12,400.00	Minnesota Cancer Society Reoperative Lymphnode Research (medicine)	1951
12,000.00	Lederle Laboratories Division, American Cyanamid Company, Research in Animal Protein Factor Supplements (agriculture)	1950
11,875.00	Urological Research—Malignant Disease Research Fund from the Minnesota Medical Foundation (medicine)	1952
11,057.80	Industrial Relations Center Research (business administration)	1949
	\$6,000.00 Dayton Company	
	5,000.00 Northwest Bancorporation	
	57.80 Sheet Metal Workers Union No. 34	
10,709.00	Neurology Research Fund (medicine)	1952
	\$3,000.00 Mr. and Mrs. Abe Sechter (\$300 a year for 10 years)	
	2,500.00 Winthrop-Stearns, Incorporated	
	2,000.00 Alex J. Tankenoff Foundation	
	2,000.00 Bayport Foundation	
	500.00 Lee Mark Foundation	
	250.00 Lewis and Annie F. Paper Foundation	
	125.00 Archie D. Walker	
	100.00 Mrs. Faye Scherible	
	234.00 Various donors	
10,335.00	American Spice Trade Association Research (agriculture)	1950
10,000.00	Minnesota Division, American Cancer Society, Incorporated Special Research (medicine)	1951
10,000.00	American Cancer Society, Incorporated—Research on Mammary Tumor Milk Agent (medicine)	1946
10,000.00	Lederle Laboratories Division, American Cyanamid Company—Research on Aureomycin (medicine)	1952
9,489.00	George A. Hormel & Company—Animal Research (Hormel Institute) (Graduate School)	1951
8,000.00	Nutrition Foundation, Incorporated, Research on Reducing Diets (medicine)	1952
8,000.00	Committee for Economic Development—Business Executive Research (business administration)	1951
7,502.00	H. Longstreet Taylor Tuberculosis Research Fund (medicine)	1951
	\$7,500.00 Minnesota Tuberculosis and Health Association	
	2.00 Through the Greater University Fund	
7,500.00	Lederle Laboratories Division, American Cyanamid Company Research on Virus Diseases in Swine (agriculture)	1949
7,500.00	Charles Pfizer & Company Research on Staphylococci (medicine)	1952
7,500.00	Lederle Fluid Research Fund (medicine)	1951
7,500.00	Sterling-Winthrop Research Institute—Research on Lithospermum Ruderale (medicine)	1950
7,105.00	Soils Research Fund, through the Greater University Fund (agriculture)	1952
6,600.00	Helen Hay Whitney Foundation Research in the Field of Rheumatic Fever (medicine)	1948
6,500.00	Du Pont Cellulose Research Fund (agriculture)	1952
6,000.00	Austen S. Cargill Fund for Surgical Research—Malignant Disease Fund, through the Greater University Fund (medicine)	1948
5,765.00	Special Research (medicine)	1953
	\$5,000.00 Minnesota Heart Association	
	500.00 Estate of Chris Zeman	
	100.00 Mary St. Clair	
	165.00 Various donors	
5,300.00	National Livestock and Meat Board Research on Biochemistry of Fatty Acids (agriculture)	1951

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Amount		Year Established
5,250.00	American Heart Association Studies in Intermediary Metabolism (medicine)	1953
5,250.00	Brucellosis Research and Travel Fund (medicine)	1946
	\$3,500.00 Lederle Laboratories	
	1,500.00 Spencer Chemical Company	
	250.00 Community Chest of South St. Paul	
5,240.00	Williams-Waterman Nutrition Fund (agriculture)	1950
5,030.00	Rose R. Peck Fund for Research in Blood Diseases (medicine)	1951
	\$5,000.00 The Griswold Foundation	
	30.00 Various donors	
5,000.00	Minneapolis Grain Exchange Agreement (agriculture)	1953
4,750.00	Insulation Board Institute Research (technology)	1944
4,680.01	Hill Foundation Research in Speech Pathology from the State University of Iowa (Hill Foundation funds) (Office of the Dean of Students)	1951
4,500.00	Lederle Laboratories Research on Brucellosis (medicine)	1948
4,500.00	Lederle Laboratories Research in Animal Diseases (agriculture)	1944
4,300.00	American Dry Milk Institute Research (agriculture)	1925
4,000.00	American Cancer Society, Incorporated—Metabolic Studies of Carcinogenic Amines (medicine)	1953
3,600.00	American Potash Institute, Incorporated, Fund (agriculture)	1940
3,500.00	E. R. Squibb & Sons—Studies on Infectious Diseases (medicine)	1953
3,460.00	Grassland Research Fund through the Greater University Fund (agriculture)	1951
3,050.00	Dairy Husbandry Research Fund (agriculture)	1953
	\$2,950.00 Through the Greater University Fund	
	100.00 Northwest Retail Feed Association, Incorporated, through the Greater University Fund	
3,000.00	Archer-Daniels-Midland Company—Flax By-product Research (agriculture)	1952
3,000.00	National Dairy Council—Research on Metabolism and Deposition of Fatty Acids (medicine)	1951
2,879.82	Star and Tribune Newspaper Studies Fund (journalism)	1944
2,782.00	Minnesota Cancer Society, Incorporated, Tumor Research (medicine)	1946
2,640.00	Land O'Lakes Creameries, Incorporated, Artificial Insemination Research (agriculture)	1950
2,600.00	Cargill, Incorporated, Research on the Relation of Molds to Sick Wheat (agriculture)	1952
2,500.00	Winthrop-Stearns, Incorporated, Research on Epilepsy (medicine)	1946
2,500.00	Merek and Company, Incorporated, Research on Swine Nutrition (agriculture)	1952
2,500.00	Merek and Company, Incorporated, Research on Poultry Rations (agriculture)	1949
2,500.00	General Mills Research on the Carbohydrates in Wheat (agriculture)	1952
2,500.00	Armour and Company Research in Fats and Oils (Hormel Institute) (Graduate School)	1953
2,500.00	Minnesota Turkey Growers Association—Research on Bluecomb Disease of Turkeys (agriculture)	1951
2,400.00	L. D. Calk Company—Dental Research on Tissue Reaction (dentistry)	1952
2,100.00	Chapman Chemical Company Graduate Research in Wood Preservation (forestry)	1951
2,025.88	Midwest Barley Improvement Fund (agriculture)	1947
2,000.00	Milk Distributors' Research Fund from Quality Control Committee	1936
2,000.00	American Society of Heating and Ventilating Engineers—Research on Solar Energy (technology)	1950
2,000.00	Spencer Chemical Company Fund (agriculture)	1950
2,000.00	Augustus L. Searle Fund for Surgical Research (medicine)	1938
2,000.00	Nutrition Foundation, Incorporated, Vitamin E Research (medicine)	1946
2,000.00	Dwan Fund for Cardiovascular Research (medicine)	1952
	\$1,000.00 Mrs. Helen Dwan Schubert	
	1,000.00 Minnesota Medical Foundation	
2,000.00	Corn Products Refining Company Residual Sugars in Bread Research (agriculture)	1948
2,000.00	John H. Briggs Porphyrin Research Fund (medicine)	1950
2,000.00	Sulphite Pulp Manufacturers' Research League, Incorporated, Research on Torula Yeast (agriculture)	1950
1,800.00	Special Research in Surgery from Dr. O. H. Wangensteen, through the Minnesota Medical Foundation (medicine)	1949
1,740.00	Heart Disease Research Fund from various donors (medicine)	1950
1,508.00	Flora Rosenblatt Fund for Cancer Research (medicine)	1944
	\$1,500.00 D. B. Rosenblatt, through the Minnesota Medical Foundation	
	8.00 Mr. and Mrs. I. Morris	
1,500.00	Archer-Daniels-Midland Company Drying Oil Research (agriculture)	1952
1,500.00	Rohm & Haas Company—Research in Chemistry (technology)	1952
1,500.00	National Soybean Processors Association—Research in Weed Control (agriculture)	1952

Amount		Year Established
1,296.00	Louis W. and Maud Hill Family Foundation—Parent-Child Relationship Research (sociology)	1953
1,000.00	Erie Mining Company Fund (technology)	1948
1,000.00	Hawaiian Sugar Planters' Association Research (agriculture)	1948
1,000.00	G. Nelson Dayton Fund for Cancer Research—Malignant Disease Fund from the Minnesota Medical Foundation (medicine)	1943
878.00	B. F. Nelson Research Fund—Research on Diabetes (medicine)	1947
852.00	Charles A. Mann Research Fund in Chemical Engineering, through the Greater University Fund (technology)	1951
800.00	Media and Attitude Studies from the <i>Boston Post</i> (journalism)	1952
750.00	Spencer Chemical Company Nitrogen Research (technology)	1952
697.63	Physical Medicine Research Fund (medicine)	1950
	\$500.00 Chippewa County Community Chest	
	150.00 Senator Donald Sinclair through the Minnesota Medical Foundation	
	47.63 Minneapolis African Violet Club	
634.63	Experimental Medical Research Fund (medicine)	1942
	\$500.00 The Dietene Company	
	134.63 Minnesota Medical Foundation	
614.50	Radiation Therapy Cancer Research Fund (medicine)	1954
	\$544.50 From various donors	
	70.00 Through the Greater University Fund	
500.00	Tennessee Corporation Fungicide Fund (agriculture)	1944
425.00	Louis W. and Maud Hill Family Foundation Research on Cerebral Palsy (medicine)	1950
250.00	Middle West Soil Improvement Committee—Alfalfa Research (agriculture)	1949
215.75	Research on Brain Metabolism from various donors (medicine)	1941
200.00	Sigma Delta Tau Foundation—Research in Blood Diseases (medicine)	1953
170.34	International Press Institute Research (journalism)	1952
100.00	Agasco Chemicals, Incorporated, Fund (agriculture)	1950
53.00	Watson P. Davidson Fund for Research in Cancer from various donors (medicine)	1953
50.00	Obstetrics and Gynecology Infertility Research from an anonymous donor (medicine)	1953
50.00	Odd Fellows Heart Research Fund (medicine)	1953
48.95	Ciba Pharmaceutical Products, Incorporated, Research on the Adrenal Function (medicine)	1951
5.00	Research on Hodgkins Disease (medicine)	1949
<b>\$1,470,065.59</b>		

### Miscellaneous Funds—New

\$ 400,000.00	From Stephen R. Kirby (over a 10-year period) to apply toward the cost of a student center and dormitory at the University of Minnesota, Duluth Branch	1953
140,000.00	From the Louis W. and Maud Hill Family Foundation (over a 10-year period) for a research professorship in enzymology and intermediary metabolism	1953
50,780.00	For a pilot internship program for prospective college teachers, from the Fund for the Advancement of Education	1953
27,505.65	From the estate of Belle Bonsteel Sorensen for the Department of Music	1954
22,000.00	From the Lederle Medical Faculty Awards for an award to Dr. Eugene Donald Grim	1954
19,860.00	From the Fund for the Advancement of Education for a Minnesota Language Auxilium for the summer institute of 1954	1954
16,999.00	From the United States Public Health Service	
	\$ 2,000.00 For a training program in clinical psychology under the direction of Dr. William Schofield	1953
	14,999.00 For expansion of the training program in cardiovascular training under the direction of Dr. Gaylord Anderson	1954
13,000.00	From the National Science Foundation to cover the salary of Professor J. William Buchta during his tour of duty with the National Science Foundation	1954
11,000.00	From Time, Inc., for historical events study under the direction of Professor Raymond B. Nixon	1953
10,000.00	From the James Ford Bell Charitable Trust to defray cost of completing the James Ford Bell Library Room	1953
9,000.00	From the Minnesota Heart Association for a symposium on cardiac physiology and cardiac surgery	1953
8,200.00	From the Fund for the Advancement of Education for an institute for high school teachers of biology	1954
7,000.00	From General Mills, Inc. for underwriting of James Gray's story of General Mills	1953
5,500.00	From the Carnegie Corporation for travel and subsistence for Professor J. William Buchta during his tour of duty with the National Science Foundation	1954

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Amount		Year Established
5,215.00	From the John D. Archbold Memorial Hospital to cover grant to William H. Thrasher while attending course in hospital administration .....	1953
5,131.83	From Mrs. Alice Tweed Tuohy for the Tweed Gallery, Duluth Branch .....	1953
5,000.00	From the Minnesota Mining and Manufacturing Company for a visiting professorship in chemical engineering .....	1953
5,000.00	From the Ford Foundation for advanced research training .....	1953
4,802.00	For the United States Department of State—United States National Committee for UNESCO, Fourth Annual Conference .....	1953
	\$750.00 Minneapolis Clearing House Association	
	500.00 Samuel C. Gale	
	300.00 Minneapolis-Honeywell Regulator Company	
	300.00 Minneapolis <i>Star and Tribune</i>	
	300.00 F. H. Feavey & Company	
	300.00 Cargill, Incorporated	
	250.00 The Dayton Company	
	250.00 General Mills, Incorporated	
	250.00 St. Paul Fire and Marine Insurance Company	
	250.00 The Joel Foundation	
	200.00 First National Bank of St. Paul	
	200.00 Station WCCO	
	150.00 Pillsbury Mills, Incorporated	
	100.00 Carl W. Jones	
	100.00 The Nash Foundation	
	100.00 Theodore W. Bennett	
	100.00 James G. Bennett	
	100.00 Greystone Foundation	
	100.00 Bernice B. Dalrymple (Mrs. John S.)	
	100.00 Archer-Daniels-Midland Company	
	100.00 Coast-to-Coast Stores	
	50.00 Northland Foundation	
	50.00 C. W. Plattes	
	50.00 John M. Musser	
	50.00 Waldorf Paper Products Company	
	50.00 James F. Bell	
	25.00 George B. Leonard	
	25.00 Richardson B. Okie	
	25.00 Harold E. Wood & Company	
	25.00 Stanley Hawks	
	25.00 George W. Morgan	
	25.00 J. D. Holtzermann	
	25.00 Mrs. E. L. Carpenter	
	25.00 Jule M. Hannaford, III	
	25.00 Frederick S. Winston	
	22.00 Various donors	
	5.00 Mrs. Irving Levy	
4,750.00	School of Forestry Service Fund .....	1954
	\$3,500.00 Through the Greater University Fund	
	1,250.00 Webster Lumber Company	
3,000.00	From the National Science Foundation for an institute for college teachers of biology to be held during the first term of the Summer Session .....	1954
2,800.00	From the Waseca County Farm and Home Management Fund for a project in extension teaching .....	1954
2,579.50	From Scholastic Roto, Inc.—Readership Survey .....	1954
2,500.00	From the Merrill Foundation for the Advancement of Financial Knowledge for lectures in the School of Business Administration ..	1954
2,000.00	From the Farmers Union Grain Terminal Association for payment of fee of 200 farmers who signed up for the Minnesota Cooperative Project in Adult Education in Agriculture .....	1954
1,200.00	From Alice R. Warren Gaarden for a lectureship in the School of Mines and Metallurgy .....	1954
890.00	From S. Vincent Owens Memorial Committee through the Greater University Fund for a memorial fund for use in the School of Social Work .....	1954
611.50	From the alumni and faculty of the Institute of Technology through the Greater University Fund for a memorial bookshelf in memory of Harry E. Gerrish .....	1953
500.00	From A. S. Cargill to cover production and film costs for a series of thirteen School of Nursing television programs .....	1953
500.00	From the Committee for a Free Asia, Inc., for books for Asian scholars .....	1954
500.00	From the Minnesota Medical Foundation for a Medical Research Laboratory Pool .....	1953
400.00	From the University of Illinois, Institute of Government and Public Affairs, for the preparation of a paper on Indo-China by Professor Lennox Mills .....	1954
220.00	From the National Science Foundation for expenses of Professor William G. Shepherd at the International Scientific Radio Union ..	1954

Amount		Year Established
239.00	Clyde Stephens Memorial Music Collection .....	1953
	\$234.00 From friends and associates of Mr. and Mrs. Clyde Stevens	
	5.00 Through the Greater University Fund	
103.00	From various donors through the Greater University Fund for assistance to the Eye Pathology Laboratory .....	1953
100.00	From Dr. Harold G. Scheie to apply toward cost of a memorial plaque in the Elias P. Lyon Laboratories .....	1954
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\$ 788,886.48		

*Miscellaneous Funds—Additions to Previous Gifts*

\$ 223,343.00	United States Public Health Service	
	\$39,586.00 Advanced Mental Hygiene Program .....	1947
	37,060.00 Training of Psychiatric Nurses .....	1947
	26,840.00 Training of Psychiatric Social Workers .....	1947
	25,000.00 Cardiovascular Teaching .....	1949
	24,500.00 Traineeships in Rehabilitation .....	1953
	16,000.00 Individual Security Study .....	1951
	15,000.00 Undergraduate Training in Psychiatry .....	1949
	11,938.00 Training in Advanced Psychiatric Social Work .....	1949
	11,619.00 Training in Neurology .....	1950
	6,000.00 Psychiatric Training .....	1947
	5,000.00 Undergraduate Training in Dentistry .....	1948
	4,800.00 Training in Clinical Psychology .....	1947
87,316.00	Minneapolis General Hospital Fellowships .....	1931
62,210.00	Ancker Hospital Fellowships .....	1950
61,650.00	Variety Heart Hospital Administration from Variety Club of the Northwest .....	1951
	\$36,650.00 Installation of Elevator	
	25,000.00 Administration	
28,111.00	National Fund for Medical Education .....	1951
	\$28,038.00 National Fund for Medical Education, Inc.	
	50.00 Dr. Donald DeMorse	
	25.00 Dr. and Mrs. Nelson A. Murray	
24,200.00	Wallace H. Cole Fund .....	1952
	\$22,200.00 Mr. and Mrs. E. W. Davis	
	2,000.00 Mr. and Mrs. F. Weyerhaeuser	
22,583.00	Student Aid and Research Fund from the Greater University Fund	1931
	\$10,654.00 Minnesota Alumni Scholarships	
	5,000.00 Greater University Graduate Fellowships	
	5,000.00 Greater University Research and Equipment Fund	
	\$1,000.00 Dorati Music Studies	
	500.00 Children's Aid Scholarship (Psycho- Educational Clinic)	
	1,000.00 Research in ornamental shrubs and landscaping (horticulture and forestry)	
	750.00 Cardiovascular Research Equipment (surgery)	
	750.00 Isotopic Composition of Helium (physics)	
	500.00 Function and Procedures of Liberal Arts College in a State University	
	500.00 Teaching English to Foreign Students as a Foreign Language	
	1,929.00 Senior Class Scholarship Fund	
22,000.00	Training Project in Delinquency Control (formerly Grant Founda- tion Personnel Training Program in Juvenile Delinquency) .....	1953
	\$20,000.00 The Grant Foundation	
	1,000.00 The Minneapolis Foundation	
	1,000.00 The Dayton Foundation	
21,196.50	Cancer Detection Clinic .....	1947
	\$21,100.00 Minnesota Division, American Cancer Society	
	96.50 Various donors	
20,673.89	4-H Club Fund .....	1931
	\$3,500.00 Cities Service Oil Company	
	2,213.00 National Committee on Boys and Girls Club Work	
	1,800.00 Standard Oil Company	
	1,500.00 Minneapolis Star and Tribune	
	1,300.00 Minnesota Cannery Association	
	1,300.00 National 4-H Club Foundation	
	1,100.00 J. A. Folger & Company	
	1,000.00 Federal Cartridge Corporation	
	1,000.00 Great Northern Railway Company	
	642.00 Northern Pacific Railway Company	
	600.00 Land O'Lakes Creameries Company	
	500.00 Soo Line Railroad Company	
	500.00 Minnesota Bankers Association	
	450.00 Farm Underwriters Association	
	325.00 Chicago & Northwestern Railway Company	
	287.50 United States Rubber Company	

DIVISIONS OF BUSINESS ADMINISTRATION

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Amount		Year Established
250.00	Chicago, Milwaukee, St. Paul & Pacific Railroad Company	
240.00	State Rural Youth Federation	
215.00	Chicago, Rock Island and Pacific Railroad Company	
200.00	The Kellogg Company	
200.00	J. R. Watkins Company	
168.75	Mutual Service Casualty Insurance Company	
155.50	Cudahy Packing Company	
149.75	Pride Hybrid, Inc.	
131.25	Republic Steel Corporation	
107.50	General Mills, Inc.	
107.99	Southern Minnesota Broadcasting Company	
110.00	Minnesota 4-H Club Federation	
77.00	George A. Hormel and Company	
91.65	Peterson-Biddick Company	
75.00	King Midas Flour Mills	
75.00	Herman W. Miller	
75.00	Station WCCO	
75.00	Webb Publishing Company	
70.00	Dairy Supply Company	
67.00	Wilson and Company	
15.00	Central Livestock Association	
20,000.00	Minnesota Division, American Cancer Society, Inc., Cancer Biology Staff Development	1951
10,000.00	Crippled Child Relief, Inc.—Rehabilitation Center	1951
9,881.67	Northwest Research Foundation (reassignment of Cornell and Montonna patent application and return of moneys held by Foundation)	
7,766.75	Heart Hospital Equipment Fund	1948
	\$7,245.25 Various donors (memorials)	
	521.50 Variety Club of the Northwest	
7,000.00	William A. O'Brien Professorship in Cancer Research	1948
4,300.00	Southwest Minnesota Farm Management Association—Agricultural Extension Fund	1950
4,131.00	Minnesota Medical Foundation—E. T. Bell Fund	1949
	\$3,631.00 Greater University Fund	
	500.00 Mr. and Mrs. Karl G. Neumeier	
4,000.00	Elizabeth Kenny Foundation—Attending Pediatrician	1949
2,601.00	Booth Memorial Hospital	1940
	\$1,200.00 Salvation Army	
	445.00 Minnesota Society for Crippled Children and Adults	
	410.33 Anonymous donors	
	300.00 RH Diagnostic Laboratory	
	246.00 Dr. Louis L. Friedman	
2,510.00	Thomas Heggen Memorial Fund	1950
2,050.00	Department of Surgery Traveling Fund—Malignant Disease Research Fund	1949
	\$2,000.00 Lewis and Annie F. Paper Foundation	
	50.00 Dr. Arnold Schwyzer	
2,000.00	School of Nursing—Special Funds from Mrs. Archie D. Walker	1951
1,925.77	University Theatre and Fine Arts Building Fund	1940
	\$1,557.02 Through the Greater University Fund	
	368.75 Mrs. Dorothy B. A. Rood	
1,605.00	John Ira Parcel Volume Fund	1953
	\$1,520.00 18 donors	
	20.00 George R. Bailey	
	20.00 R. D. Spencer	
	20.00 Walter K. Cook	
	10.00 L. A. Tvedt	
	5.00 Wendell E. Johnson	
1,511.00	Friends of the University of Minnesota Library Fund, memorials to H. W. Wilson, through the Greater University Fund	1944
1,420.00	Owen H. Wangenstein Surgical Education Fund	1953
1,415.77	Minnesota Jewish Council 4-H Club Fund	1945
1,404.00	Minneapolis Star and Tribune Fund—School of Journalism	1950
1,200.00	Martin Ruud Memorial Fund, from Mrs. Ruud, through the Greater University Fund	1941
1,000.00	John Rood Collection	1952
893.00	Minnesota Dairy Technology Society Fund	1950
654.00	St. Paul Campus Union Fund	1949
626.43	Dental Service Fund, through the Greater University Fund	1952
587.50	Minnesota Implement Dealers Association—Farm Safety Booth	1952
500.00	Physicians & Hospital Supply Company and Ulmer Pharmaceutical Company Fund	1953
365.00	Auditorium and Stadium Pledge	
345.00	Hospital Budget	
	\$275.00 Foster Club	1950
	70.00 Various donors	
250.00	Brucellosis Research and Travel Fund	1946
200.00	Guild Memorial Lectureship	1947
200.00	Judd Lectureship in Medicine and Surgery	1933
162.65	Andrew Boss Library Fund	1953

Amount		Year Established
161.50	J. C. Litzberg Memorial Room Fund	1950
150.00	Agricultural Short Courses—from Northwest Feed Manufacturers Association	1952
143.00	William Harvey Emmons Fund	1944
141.30	Marshall Hervey Memorial Bookshelf Fund	1953
125.00	Continuation Medical Education, from the Minnesota State Medical Association	
110.50	Wesley E. Peik Teacher Education Fund, through the Greater University Fund	1952
100.00	Art Department, Duluth Branch, from Mrs. Marion B. Nordal	1953
51.00	School of Agriculture, St. Paul Campus, Loyalty Fund, through the Greater University Fund	
47.00	Frank K. Walter Lecture Fund, through the Greater University Fund	1950
25.00	Veterinary Medicine Service Fund, through the Greater University Fund	1951
10.00	Mayo Memorial Equipment Fund	1950
5.00	Art Development Fund, through the Greater University Fund	1951
4.00	Music Development Fund	
1.00	Greater University Fund	
<b>\$ 666,843.23</b>		

### MISCELLANEOUS GIFTS, 1953-54

- A bus from the Northland Greyhound Bus Company to the Duluth Branch
- A Stoke's Eureka Tablet machine from Louis Finn to the College of Pharmacy
- A clay effigy bowl from Chichicastenango, Guatemala, a Gurka Sword and 2 knives from Nepal, a musical bow from Myitvina, Burma, and a two-stringed musical instrument from Kuoming, China, from Colonel Ernest R. Bert to the Department of Anthropology, College of Science, Literature, and the Arts
- A reactor dynamometer installation for mixing studies from the Minnesota Mining and Manufacturing Company to the Department of Chemical Engineering, Institute of Technology
- Six pumping units from the Electric Manufacturing Company to the Hydraulic Laboratory, Institute of Technology
- A 500-pound electric hoist from P. & H. Harnischfeger Corporation, Milwaukee, Wisconsin, to the Department of Electrical Engineering, Institute of Technology
- A model 213 8-cylinder spark ignition engine from the International Harvester Company to the Division of Agricultural Engineering, Institute of Agriculture
- The following implements from the Gardner-Denver Company, Quincy, Illinois, to the School of Mines and Metallurgy, Institute of Technology, with the provision that the Company will replace units which become obsolete:
- 1 model CF73 drifting drill
  - 1 model PCO pneumatic column for mounting drill
  - 1 model FL48 feed leg sinker drill
  - 1 model HB single drum air hoist
- Miscellaneous equipment (valued at \$200) from the Western Electric Company, New York, to the Department of Mechanical Engineering, Institute of Technology
- A bronze medal from Carey Wilson, president of Screen Producers Guild, Incorporated, awarded to the University of Minnesota as Third Place Award in the 1953 annual Inter-Collegiate Film Contest
- P. & H. Diesel engine from the Harnischfeger Corporation, Crystal Lake, Illinois, to the Department of Agricultural Engineering, Institute of Agriculture, for teaching purposes in the engine laboratory
- To the Department of Concerts and Lectures for the Drama Advisory Service:
- Makeup valued at \$35 from the Northwest Costume House, Minneapolis
  - Two 1,000-watt powerstat dimmers and one 360-watt household dimmer valued at \$135 from the Superior Electric Company, Bristol, Connecticut
  - Lighting units valued at \$60 from Swiveller Company, Incorporated (loan only)
- Eleven paintings and 11 prints from Dr. and Mrs. Malcolm A. McCannel, Wayzata, to the University Gallery
- Eighteen pictures from Mrs. Alice Tweed Tuohy to the Tweed Gallery, Duluth Branch
- A cap, gown and hood from Mrs. Irving W. Jones
- The following gifts from Hugh M. Roberts, Duluth, Minnesota, to the Department of Anthropology:
- A beaded birch-bark basket
  - A copper knife
  - 2 beaded necklaces, with some copper tinklers
  - 2 steel arrowheads
  - A chalcedony arrowhead
  - A flaked stone knife
  - Part of a "strike-a-lite"
  - Some small fragments of iron and copper
- A custom built humidifying system from W. S. Anderson, Aluminum Company of America, to the Department of Mechanical Engineering, Institute of Technology
- Four honorary degree hoods from Mrs. Charles A. Prosser
- A Beckman monochromer infrared spectrometer from the California Research Corporation, San Francisco, California, to the School of Chemistry, Institute of Technology
- Automatic roll player for use with the Frances Miller Brown Memorial Bells from H. Rowatt Brown

- Eight 50-pound bags of powdered soap from the Surplus Property Section, Department of Education, State of Minnesota, to the University Laundry
- Eight hundred gallons of Standard aviation gasoline to the University's Anoka flight activities station for use at the Inter-Collegiate Air Meet from the Standard Oil Company, Minneapolis
- A miniature "Stop and Go" signal for use in short course and conference programs from R. C. Malmquist, chief of the Fire Department of the City of Minneapolis, to the School of Agriculture, Institute of Agriculture
- Materials and facilities to a research project on prestressed concrete to be undertaken by a graduate student in civil engineering as part of the work for his M.S. degree from the Northern States Prestressed Concrete Company, Minneapolis
- To the Department of Botany Herbarium, College of Science, Literature, and the Arts:  
Botanical specimens from F. W. Hunnewell, Professor Olga Lakela, Patricia J. Rand, Professor C. O. Rosendahl, Dr. N. H. Russell, and Dr. R. M. Tryon
- Six hundred and twenty-seven specimens of miscellaneous vascular plants, mostly from St. Louis County, Minnesota, from Professor Olga Lakela
- Lots 7, 9, 11, and 13 of Block 20, Superior View, Second Addition, from the City of Duluth as an addition to the University of Minnesota, Duluth Branch Campus
- Lots 5, 6, 7, 8, 9, and 10, Auditor's Plat No. 8, of Farrell's Addition to the City of Duluth (except mineral rights) from Dr. and Mrs. Wm. R. Bagley and Dr. Elizabeth C. Bagley

## BOOK GIFTS, 1953-54

## To the University Libraries:

- The University of Minnesota Libraries received 12,714 books, pamphlets, and separate issues of periodicals as occasional gifts during 1952-53 of which the following are worthy of special mention:
- A collection of 111 publications in the Czech and Slovak languages, primarily history, folklore, and bibliography from Dr. Josef Brozek, Laboratory of Physiological Hygiene
- A set of John Burroughs' works, sent to the Duluth Branch Library, from Mrs. S. H. Findley, Minneapolis
- Twenty volumes of late 19th and early 20th century French works on psychology and philosophy of science from Marguerite Guinotte, Minneapolis
- A set of Meredith's works for the "Y" collection from Professor Emeritus Roy C. Jones
- A collection of 750 volumes from the family of Professor Emilio C. Le Fort, deceased, being his working library of Spanish-American history and literature
- A collection of 150 volumes of chemistry and chemical engineering from the library of the late Professor Montonna from Mrs. Ralph E. Montonna, St. Paul
- A collection of 99 volumes in the field of education, plus 1,173 issues of education journals, from the family of the late Dean Wesley E. Peik
- A collection of 160 volumes on Japanese history and international relations from Mrs. Mary H. Riley, manager, Professional Colleges Bookstore
- 1,460 issues of the *Arbeiter Zeitung* from Albert Schvekiger, St. Paul
- 473 miscellaneous United Nations publications from Dr. Maurice B. Visscher, head, Department of Physiology
- A collection of 115 Maggs Bros., sales catalogs from H. W. Wilson, New York, New York
- 1,950 volumes, the library of the late Professor Martin B. Ruud, from Mrs. Rudd
- A collection of books and related materials pertaining to the Paul Bunyan legend assembled by the late Werrett W. Charters, from Mrs. Charters, through the Friends of the University Library
- Books by Mahatma Gandhi and Prime Minister Nehru from the Ramnarayan Chellaram & Sons Charitable Trust, through the Ambassador of India, Washington, D.C.
- The Pennsylvania Chronicle and Universal Advertiser*, vol. 2, February 1, 1768, through January 23, 1769; *The Emigrant Aid Journal*, vol. 1, no. 10, October 10, 1857; and Godwin, William, *Enquiry Concerning Political Justice and Its Influence on Morals and Happiness*, 2 vols., Philadelphia, 1796, from Mrs. Henry L. Woltman, St. Paul
- Townsend, Peter S. *An Account of the Yellow Fever as It Prevailed in the City of New York in the Summer and Autumn of 1822*; and Townsend, Peter S. *Memoir on Typography, Weather, and Diseases of the Bahama Islands*, 1826, from Dr. W. D. Sargent, M.D., Department of Health, South Bend, Washington
- Rare book (one volume): Spenser, Edmund, *The Faerie Queen; The Shepherds Calendar*; together with other works, A.D. 1611, from Henry W. Hill
- Five rare books and 2 pieces of Pennsylvania Colonial currency—all showing printing craftsmanship of Benjamin Franklin, from the Minneapolis Club of Printing House Craftsmen
- A Paul Bunyan collection as a memorial to Werrett W. Charters from Mrs. Charters and her son, W. Wallace Charters, Jr., through the Greater University Fund
- A copy of Sacrobosco's *Sphaera Mundi* printed in Venice, 1485, from Printing Industry of St. Paul, to the James Ford Bell Collection of Rare Books
- Several books and original manuscripts from Herbert S. Zim and Elizabeth Coatsworth, and over 100 original drawings from Mrs. Howard Cook to the Kerlan Collection

To the Rare Book Collection from Dr. Ernst Gellhorn: Arend, Heinrich Conrad, Das gedechtniss der ehren eines derer vollkommnesten kunstler seiner und aller machfolgenden zeiten, Albrecht Durers, um eben die zeit, als er vor 200, jahren die weit verlasse . . . Goslar, 1728

### ASSIGNMENTS OF PATENT APPLICATIONS, 1953-54

Assignment of Application for Patent Serial No. 367,472, Samuel T. Coulter and Verne H. Townley, Method and Apparatus for Spray Drying  
 Assignment of Application for Patent Serial No. 383,806, Cook, Change and Huch, Flotation Test Apparatus  
 Assignment of Application for Patent Serial No. 384,410, Milo H. Swanson, Method and Package for Maintaining Egg Quality  
 Assignment of Application for Patent Serial No. 377,326, Young, Underdahl, Hinz, and Silbernick, Brooder for Quadrupeds  
 Assignment of Application for Patent No. 358,193, Leroy E. Schulze, Process of Preparing Yarns

### PATENTS RECEIVED, 1953-54

Original Patent No. 2,664,649 (Application Serial No. 214,668), Howell & Irwin, Apparatus for Speech Instruction  
 Original Patent No. 2,636,890 (Application Serial No. 40,433), Walter O. Lundberg, Methods for Preparing Peroxides of Unsaturated Fatty Acids and the Like  
 Original Patent No. 2,651,644 (Application Serial No. 97,093), Ole Gisvold, Dehydro-bicatchols  
 Original Canadian Patent No. 496,180 (corresponding to United States Patents Nos. 2,421,117 and 2,382,475) (Application Canadian Serial No. 513,222), Ole Gisvold, Extraction of Nordihydroguaiaretic Acid from the Creosote Bush

### OTHER DOCUMENTS, 1953-54

Letter Agreement and Assignment Agreement to the Wisconsin Alumni Research Foundation relating to cooperative work by Professor Willes B. Combs and the Department of Dairy Husbandry on Nuworld Cheese  
 License and Option Agreement with Pittsburgh Coke and Chemical Company covering the invention of Harold Heggeness on Herbicides

### SUMMARY OF FINANCIAL OPERATIONS

The data which follow constitute a brief summary of the financial report for the year ended June 30, 1954. A complete financial report for each year of the biennium has been published separately and is available on request.

#### Sources of University Income

##### From the State

<i>The Legislative Maintenance Appropriation</i> .....	\$14,847,000.00
For the general support of instructional, research, and administrative departments, and maintenance of buildings and grounds, including the Institute of Agriculture, the Agricultural Schools and Experiment Stations, and the Duluth Branch.	
<i>The 23/100 Mill Tax</i> .....	329,398.82
The standing direct property tax for the general support of the University.	
<i>The Cost of Indigent Patients at the University of Minnesota Hospitals</i> .....	1,837,097.87
State Appropriation, \$918,548.94; Counties' Share, \$918,548.93.	
<i>The Special Projects Administered and Carried on by the University for the General Benefit of the People of the State</i> .....	1,594,983.00
These special projects include Agricultural Extension, County Agents, Beneficiation of Manganiferous Ores, General Agricultural Research, Medical Research, Livestock Sanitary Board, Child Welfare, Psychopathic Hospital Maintenance, General Research, Minnesota Institute of Research, Home Demonstration and 4-H Club Work, Agricultural Research—Rosemount, Hybrid Corn Maturity Tests, School of Agriculture Student Aid Fund, and the Child Psychiatric Hospital.	
<i>The Physical Plant Extensions</i> .....	1,131,000.00
1951—Building Fund Receipts—Heating Plant—Minneapolis, \$250,000; Underpinning buildings—Morris, \$50,000. 1953—Building Fund Receipts—Equipment for Hospitals, \$150,000; Head House and Greenhouse—St. Paul, \$100,000; Library—Duluth Branch, \$100,000; Home Economics Building—Morris, \$100,000; Re-	

modeling Home Economics Building—Crookston, \$40,000; Boilers—Grand Rapids, \$36,000; Seed House—Waseca, \$40,000; Repairs, Remodeling, and Minor Structures—Branch Stations, \$50,000; Chemical Storehouse, \$100,000; Law School Addition, \$25,000; Student Center—Duluth Branch, \$25,000; Heating Plant and Tunnels—St. Paul, \$25,000; Green House—Morris, \$40,000.

<b>From the Federal Government</b>	
<i>Instruction, Research, Extension, and Plant Extensions</i> .....	2,356,723.13
This income is divided: for instruction, \$156,133.73; for agricultural research, \$299,533.05; for agricultural extension, \$852,943.14; for physical plant expansion, \$1,048,113.21.	
<b>From the Permanent University Fund</b> .....	913,389.10
The principal of the fund, amounting to \$37,390,531.95 on June 30, 1954, was derived from land set aside by the Federal Government and 10 per cent of the occupational tax on iron ore. The income is used for general university support.	
<b>From the Swamp Land Fund</b> .....	105,807.06
The principal of the fund was derived from land set aside by the State of Minnesota. The University participates in the income.	
<b>From Fees and Receipts</b> .....	8,557,858.97
This income is divided: student tuition fees, \$3,282,578.32; student course fees, \$138,494.71; hospital receipts, \$1,906,050.95; dental infirmary receipts, \$163,032.13; other departmental receipts such as laboratory fees, sale of livestock and agricultural products, \$3,019,-394.48; miscellaneous, \$48,308.38.	
<b>From University Services and Revolving Funds</b> .....	8,980,789.85
This includes income from such university services as dormitories, dining halls, veterans' housing, printing, laundry, University Press, Concerts and Lectures, University Theatre, and Health Service, and from such revolving funds as seed distribution fund, towel funds, locker funds, and private duty nurses' funds. (Of this amount \$98,630.01 was used for plant expansion.)	
<b>From Trust Funds</b> .....	8,739,318.16
The trust funds include gifts, grants, donations, and income from endowments and research contracts for instruction, research, prizes, scholarships, fellowships, and care of the sick. Of this amount \$240,998.37 was used for plant extensions.	
<b>From Intercollegiate Athletics</b> .....	1,045,987.20
This income is divided: Minneapolis Campus, \$1,009,641.48; Duluth Branch, \$36,345.72.	
<b>Total Receipts</b> .....	\$50,439,353.16
<b>Free Unencumbered Balance, July 1, 1953</b> .....	4,395.38
<b>Grand Total</b> .....	\$50,443,748.54

*Expenditures for University Operations*

<b>For Administration of the University</b> .....	\$ 1,499,978.90
The expenses of the offices of the President, the Vice Presidents, the Comptroller, the Dean of Students, the Dean of Admissions and Records, Office of Civil Service Personnel, and other general administrative offices.	
<b>For the General University</b> .....	2,098,553.54
The expenses of the library, general bulletins and publications, lectures and convocations, the storehouses, truck service, inter-campus trolley, and other services of an all-university character.	
<b>For Instruction and Research</b> .....	22,340,300.17
The expenses of college instruction and research, the Duluth Branch, Agricultural Schools and Experiment Stations, the University of Minnesota Hospitals, Summer Session, Agricultural and General Extension (General Funds, \$16,010,719.59; Federal Funds, \$1,300,533.95; Special State Appropriations and Income, \$5,029,046.63).	
<b>For Physical Plant Operations</b> .....	3,980,372.09
The expenses of maintaining and operating the buildings and other improvements—Minneapolis and St. Paul Campuses.	
<b>For Physical Plant Extension</b> .....	5,974,652.48
Remodeling Temporary North of University High School, \$31,406.19; Duluth Metal Building, \$45,388.07; Hypersonic Wind Tunnel, \$52,339.55; Heating Plant Boiler—Minneapolis, \$377,449.80; Waseca Farm School Buildings, \$80,466.09; College of Education Building, \$93,224.77; Equipment Replacement—University Services, \$41,957.07; Physical Education Building—Duluth, \$315,326.40; Alteration to vacated spaces—St. Paul, \$32,565.22; Headhouse and Greenhouse—St.	

Paul, \$57,215.99; Underpinning damaged buildings—Morris, \$47,500.50; Equipment—University Hospitals, \$212,459.27; Improvements—Engineering Experiment Station, \$141,713.44; Library—Duluth Branch, \$30,321.02; Mayo Memorial Building, \$3,749,867.46; Research Laboratory Building, \$215,511.77; Remodeling—Old University High School Building, \$95,758.71; Purchase of Real Estate, \$54,282.10; Athletic Field Development—Duluth, \$32,763.71; Miscellaneous, \$267,135.35.

<b>For University Services and Revolving Funds</b> .....	8,010,558.75
This includes expenditures for such University services as dormitories, dining halls, veterans' housing, printing, laundry, University Press, Concerts and Lectures, University Theatre, and Health Service, and for such revolving funds as seed distribution fund, towel funds, locker funds, and private duty nurses' funds.	
<b>For Trust Fund Purposes</b> .....	7,621,955.20
This includes expenditures for prizes, scholarships, fellowships, care of the sick, and expenditures from endowment and research contract funds for instruction and research.	
<b>For Intercollegiate Athletics</b> .....	894,330.61
The operating expenses of intercollegiate athletics and that part of the physical education expense paid from receipts of intercollegiate athletics. Minneapolis Campus, \$858,698.67; Duluth Branch, \$35,631.94.	
<b>Transfers and Adjustments</b> .....	1,980,318.69
Miscellaneous transfers between Endowment, Current, Loan and Plant Funds, \$159,755.92; outstanding obligations and allotment decrease, \$2,083,044.22 (current funds, \$116,355.72; plant funds, \$1,966,688.50); decrease in current reserves, \$57,030.39.	
<b>Total Expenditures, Transfers, and Adjustments</b> .....	\$50,440,383.05
<b>Free Unencumbered Balance, June 30, 1954</b> .....	3,365.49
<b>Grand Total</b> .....	\$50,443,748.54

### A Few Interesting Facts about the University

<b>Student Enrollment*</b>	1950-51	1951-52	1952-53	1953-54
Collegiate .....	30,848	26,085	26,225	26,340
Fall Quarter—Second week .....	(22,080)	(18,682)	(18,806)	(19,074)
Noncollegiate .....	23,637	23,871	23,919	25,571
Extension .....	16,868	17,603	18,144	18,147
<b>Staff—All Funds</b>				
Academic Staff .....	3,057	2,856	2,870	2,984
Civil Service Staff† .....	3,706	4,026	4,137	4,281
<b>Colleges</b>	<b>Departments</b>		<b>Departments</b>	
Science, Literature, and the Arts	31	Schools of Dentistry, Law, Pharmacy, Business Administration, University and General Colleges—each		1
Institute of Technology	14	Duluth Branch		11
Institute of Agriculture	33			
Medical Sciences	19			
College of Education	13			
Graduate School	14			
<b>Land—June 30, 1954</b>		<b>Acres</b>		<b>Value</b>
Minneapolis Campus .....		195.87		\$5,053,082.79
St. Paul Campus—Agriculture .....		711.49		692,364.04
Duluth Branch .....		174.56		49,728.49
<b>Branch Stations</b>				
Crookston .....		915.89		142,650.97
Morris .....		823.82		61,137.53
Grand Rapids .....		454.60		34,095.00
Duluth .....		282.74		41,401.00
Waseca .....		598.29		77,779.46
Cloquet .....		3,702.09		66,446.39
Excelsior .....		223.06		38,233.72
Rosemount Research Center .....		7,973.30		1,617.04
<b>Total</b> .....		16,055.71		\$6,258,536.43

\* Includes Duluth Branch.

† Reduced to a full-time basis.

	Major		Minors	
	Number	Value	Number	Value
<b>Buildings—June 30, 1954</b>				
Minneapolis Campus .....	73	\$49,589,533.74	43	\$ 335,081.03
St. Paul Campus—Agriculture .....	39	7,157,130.94	51	456,440.68
Off-Campus Buildings .....			378	418,080.33
Duluth Branch .....	9	3,051,220.67	8	75,525.00
Rosemount Research Center .....	7	241,585.66	122	148,466.90
Branch Stations				
Crookston .....	11	1,013,779.02	43	191,195.12
Morris .....	14	1,168,615.42	20	84,756.69
Duluth .....	2	70,826.00	22	103,944.07
Grand Rapids .....	4	338,347.57	24	110,152.04
Itasca .....			53	94,729.57
Waseca .....	2	1,466,034.39	34	80,637.73
Excelsior .....			24	78,925.55
Cloquet .....			34	65,849.59
Rosemount .....			52	211,964.57
Total .....	161	\$64,097,073.47	908	\$2,455,748.96
<b>Equipment—June 30, 1954</b>				
	Total	Livestock	Books and Museum Collections	Other
Minneapolis Campus .....	\$16,461,833.73		\$7,630,270.92	\$ 8,831,562.81
St. Paul Campus—Agriculture .....	3,400,624.84	\$241,065.18	488,900.54	2,670,659.12
Duluth Branch .....	726,311.52		168,931.34	557,380.18
University Services .....	3,108,414.89		22,221.86	3,086,193.03
Trust Funds .....	2,187,085.98		2,551.29	2,184,534.69
Total .....	\$25,884,270.96	\$241,065.18	\$8,312,875.95	\$17,330,329.83
<b>Endowment—June 30, 1954</b>				
				Value
For general purposes .....				\$37,390,531.95
Unassigned funds operating temporarily as an endowment .....				1,694,382.04
For student aid—scholarships, prizes, and loans .....				1,785,729.68
For educational purposes .....				7,451,778.96
For other purposes .....				2,228,029.72
Endowment subject to annuity .....				230,740.06
Total .....				\$50,781,192.41
<b>Loan Funds—June 30, 1954</b> .....				\$ 618,363.85

‡ Valuation \$25,000 and under.

—WILLIAM T. MIDDLEBROOK, *vice president*.

## PUBLICATIONS OF THE FACULTIES

A list of the publications of the faculties of the University of Minnesota for 1952-53 and for 1953-54 are contained in separate publications.

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